







THE CARNEGIE FOUNDATION  
FOR THE ADVANCEMENT OF TEACHING

THE FINANCIAL STATUS OF THE PROFESSOR  
IN AMERICA AND IN GERMANY

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## CONTENTS

	PAGE
Index of Tables . . . . .	iv
Preface . . . . .	v
Organization and Classification of Colleges and Universities in the United States and Canada . . . . .	1
Proportion of Teachers to Students in Relation to Educational Efficiency . . .	48
Tenure of Office and the Method of Appointment in American Colleges and Univer- sities . . . . .	55
Retiring Allowances in American Colleges and Universities . . . . .	58
The Amount of Teaching Demanded of a Professor . . . . .	62
The Financial Status of the University Professor in Germany. Organization of Ger- man Universities . . . . .	63
Government Salary Schedules in the Universities of the Different German States .	70
Total Incomes of Full Professors . . . . .	74
Tenure of Office and Provisions for Retirement . . . . .	87
Pensions of Widows and Orphans of University Professors . . . . .	90
Index . . . . .	99

# INDEX OF TABLES

	PAGE
Institutions Classified by Expenditures for Teachers' Salaries . . . . .	5
Degree Conferring Institutions in the United States and Canada Appropriating Annually \$45,000 or over for the Total Payment of the Salaries of their Instructing Staffs . . . . .	10
Summary of Average Salaries in 102 Institutions . . . . .	20
Maximum Salaries . . . . .	26
Summary of Average Salaries of Full Professors in American Colleges . . . . .	29
Average Age of Full Professors in Thirteen American Universities . . . . .	33
Average Salaries of Full Professors Arranged According to Incomes of Institutions . . . . .	34
Average Salaries of Instructors Arranged According to Incomes of Institutions . . . . .	35
Data Concerning Partial List of Institutions in which Annual Expenditure for Instructing Salaries Ranges from \$10,000 to \$45,000 . . . . .	40
Proportion of Teachers to Students in Undergraduate Colleges and Non-Professional Graduate Schools of Institutions in Table II . . . . .	49
Incomes Received for Teaching by Full Professors in German Universities . . . . .	75
Same (Classified by the Subjects Taught) . . . . .	76
Variability of Incomes of Full Professors within the Same Institutions . . . . .	78
Variations with Respect to Professors' Incomes from Teaching for Each Faculty of Thirteen German Universities . . . . .	79
Incomes Received from Teaching by Associate Professors (Etatsmässig) in German Universities . . . . .	81
Relative Frequencies of Different Incomes from Teaching Received by Professors in the Technische Hochschulen at Charlottenburg, Hannover, Aachen, and Dantzig . . . . .	83
Relative Frequencies of Different Incomes from Teaching Received by the Remunerated Docents of the Technische Hochschulen . . . . .	83
Incomes Received from Teaching by Full and Associate Professors Combined in German Universities . . . . .	84
Incomes of University Professors in Prussia from Extra-University Royal Offices . . . . .	85
Tabular Statement of Retiring Allowance Systems in German Universities . . . . .	88
Data Concerning Ages of Full Professors in German Universities . . . . .	94
Data Concerning Ages of Associate Professors in German Universities . . . . .	95
Average Age of Full Professors in Prussian Universities . . . . .	96
Average Age of Full Professors in German Universities exclusive of Prussia . . . . .	96
Average Age of Associate Professors in Prussian Universities . . . . .	97
Average Age of Associate Professors in German Universities exclusive of Prussia . . . . .	98



## PREFACE

The Carnegie Foundation for the Advancement of Teaching was instituted for the betterment of the calling of the teacher in the three English-speaking countries of North America. It aims to do this directly by establishing in higher institutions of learning an efficient system of retiring allowances for professors.

Not only must the teacher's calling be made more secure but the compensation of the teacher must also be bettered and he must receive from the institution for which he works a salary sufficient to enable him to live in comfort and to educate his children.

While general statements have been made in various publications concerning the rate of compensation of the American teacher, and while comparisons have been made with the pay of foreign teachers, no trustworthy information has been at hand to show just what is the compensation of a teacher in different institutions and how it compares with the pay of a foreign professor. During the short time in which the Carnegie Foundation has existed a carefully planned effort has been carried out to secure this information from various colleges and universities in the United States and Canada. The statistics which are given in the following Bulletin have been obtained directly from the institutions themselves.

There are in the United States and Canada approximately one thousand institutions bearing the name "college" or "university." These institutions are of all possible academic grades between a true university and an indifferent high school. Roughly speaking, nearly one half of these institutions are not colleges in any true sense, and the pay which their teachers receive is proportionately small. It would manifestly be unjust to base any estimate of the pay of the teacher in the stronger colleges or universities upon a comparison made with this latter class of institutions. No criterion perhaps can be chosen for dividing our colleges and universities which is not artificial and arbitrary; but on the whole it has seemed fairest to compare together the institutions having the highest annual salary roll for teachers. The information which follows rests in the main upon a group of approximately one hundred institutions in the United States and Canada which pay the largest total amount annually in the way of salaries to their instructing staffs. The stronger institu-

tions in the United States and Canada are so similar in organization, rest upon a system of public instruction so nearly the same, and pay on the average salaries so nearly comparable that there would be no gain in exhibiting the statistics of the two countries separately. On the other hand there is every advantage to both countries in an interchange of educational information and in an exchange of teachers. The establishment by the Carnegie Foundation of a uniform system of retiring allowances in both American and Canadian institutions facilitates such an exchange.

The results here given show that the average salary of a full professor in these one hundred leading institutions varies from \$1,350 to nearly \$4,800, and that in the average it is somewhere near \$2,500. In other words, the full professor in the one hundred institutions in the United States and Canada which are financially strongest receives on the average an annual compensation of approximately \$2,500.

It will be evident to any one who inspects these tables that the variation in salary corresponds in considerable measure to the variation in the cost of living. It is clear that in a small town in the middle west, in which house rent is one hundred dollars a year and in which servant hire is ten dollars a month, a salary of \$2,000 may well be a comfortable one, while a salary of \$4,000 in New York will not secure equal advantages. In other words, there is for each locality an approximate line of comfort in the remuneration of such a member of the social order as a professor. The individual receiving a salary above this line is comfortable; the individual receiving a salary below it must have more or less worry over the financial problem. In one case, it means better service, certain additional comfort, the ability to send a boy or a girl to college, and above all, freedom from financial worry. A salary below this line means a struggle to live and to educate the children of the family. While college salaries can never be made the equal of those paid in large business enterprises, it is clearly to the interest not only of the professor himself, but of the students and of society in general, that his salary should in all places approach the line of comfort. That it does not do so in most American colleges is only too clearly proven by the statistics given in this Bulletin.

These statistics show in brief that an American teacher who has gone through college, taken a post-graduate course, and prepared himself for the profession of teaching, may hope to obtain at the age of twenty-eight a salary of \$1,250, at thirty-one a salary of \$1,750, at thirty-three a salary of \$2,250, and at thirty-five—at which age the able man will have gained his professorship—a salary of \$2,500.

Above all, the career of a professor in America is discouraging from a financial point of view in the absence of any large prizes. In only two or three institutions does the maximum salary amount to \$5,000, and these maximum salaries are open to a very small number even in the institutions which pay them.



For the sake of comparison the second part of this Bulletin contains an exhibit of the financial status of the German professor. A study of the two will show that the German university professor may expect in time a far greater financial and social reward than comes to his American colleague. He has, furthermore, a place of far greater security and with full protection for old age and for his wife and children. The German practice is particularly in contrast with that in the United States by reason of the fact that it includes a scale of remuneration which can fit a wide scale of merit. The struggling privat-docent has a bare living, but the better known teacher may hope to get a financial return comparable with that of a well-established lawyer or physician.

On the other hand, there is a marked contrast in the length of preparation to which the German professor submits in comparison with that of the American. A German who possesses such ability that he may expect in due time to become a full professor and who prepares himself for university teaching must expect to study until the age of thirty with no financial return, to study and teach as a docent till nearly thirty-six with an annual remuneration of less than \$200, and to teach from thirty-six to forty-one with an annual remuneration of from \$600 to \$2,000, by which time he may become a full professor and will continue to receive his salary until his death. In other words, the road to a professorship in a German university involves a period of training and of self-denial far longer and more exacting than that to which the American professor submits.

The essential contrasts between the American and the German professors brought out by the statistics here given are, therefore, these: the German must submit himself to a far more rigid régime, must attain a far higher grade of scholarship, and must go through an experience under which the weaker men are weeded out. If he succeeds, however, he may hope for a much larger reward and be assured of security in old age.

It will be evident to one who examines with care the status of the American college professor that the low scale of salaries which obtain in most institutions is due in no small measure to the multiplication of weak and unnecessary colleges. No two causes have had a larger share in bringing down the financial reward of the teacher and of taking away from the dignity of his position than the tendency to multiply the number of colleges with little regard to standards and the tendency to expand the curriculum over an enormous variety of subjects without regard to thoroughness. A college of ten professors who are strong teachers, commanding fair compensation and teaching only such subjects as they can teach thoroughly, is a far better centre of intellectual life than a college which seeks with the same income to double the number of professors and to expand the curriculum to include in a superficial way the whole field of human knowledge. It is a true college that chooses to add to its curriculum only so fast as it can provide fair salaries for the work already in hand. It is clear from the

statistics of institutions given in this Bulletin that the low grade of college salaries in a certain group of American institutions is due to the attempt to maintain a university with an income which is adequate only to the maintenance of a good college. The scholarly atmosphere maintained at some institutions, whose smaller income has placed them in the second group of institutions for which statistics are presented, is fairly well connected with the relatively high salaries they pay to professors.

The payment of a fair salary to the teacher is also directly connected with the output of scholarly work and the advance of research among college and university teachers. A large proportion of the teachers in American universities are engaged in turning the grindstone of some outside employment with one hand whilst they carry on the work of the teacher with the other. Owing to the rise in the cost of living the proportion of teachers who seek to increase their incomes in this way is very large. The method of organization of the American university also throws a large amount of executive work upon members of the faculty. For this extra compensation is sometimes paid. Both processes cut down the opportunity for scholarly study and take away from the dignity, simplicity, and highmindedness of the teacher's calling.

While there are facts on the financial side of American teaching here exhibited which are to be regretted, it is nevertheless true that notwithstanding the present small financial reward, the future of the American teacher looks brighter than it ever has before. Colleges are beginning to discuss with seriousness the need of strong teachers as distinguished from the need for material equipment. This fact itself is a hopeful indication of educational progress. A movement is on foot among all of the better institutions to make the salary of the teacher approximate what might be called the line of comfort. In addition to this, there is being established in a large number of American institutions a system of retiring allowances under which a teacher receives as a right the retiring pay after his active service ceases.

All of these things look toward a new appreciation of the dignity, the worth, and the attractiveness of the teacher's life. No man is likely to choose this life for the love of gain, or from considerations of material advancement. The great majority of college teachers probably never consider the financial returns of their profession on a competitive basis with other professions. The attraction which leads able men into the teacher's calling springs from two sources—first the sense of power and responsibility which the true teacher feels; secondly, the love of study and of the scholar's life.

The first of these causes is perhaps the more important. Institutions of higher learning, whether they devote themselves to religion, technology, or literature, maintain honestly that they stand for truth. Sensitiveness for honor is high in officers and students; and the professor must not only be a part of this forward movement, but he must be a leader in it. Success comes to him



only by taking worthily the position accorded to him as the appointed guardian of the ideals of his community.

This leadership, which involves personality, character, and scholarship, reacts upon the professor himself at the first moment of success, and in this fact lies the secret of his devotion to his work. The professor's life becomes permeated with a quiet force, the value of which is realized only when one comprehends what a power a student body is for good or evil. These students are a power not only among themselves, but they are a tremendous influence upon the community, and it follows naturally that every action of the professor touches vitally the stability of the community and of the country. Such leadership, such demands of gentlemanliness, bring with them a reward compared with which a few hundred dollars one way or the other in salary are of small significance. The professor confidently does not accept other men's valuation of his work when it is estimated by the tuition fees of his students. But, held in a position of highest dignity by those about him, he lives a life of frugality, of simplicity, of influence, and above all, of happiness. He lives, as Mr. Lowell observed, in the only recognized aristocracy in America.

The second important consideration for the professor is his opportunity for research. Since the development of graduate schools in American universities it is no longer sufficient for the professor to be merely a middleman in the distribution of knowledge, passing on year after year the same information taken from the same text-books. An important function of the modern university is the extension of the domain of knowledge; and a university in order to maintain its rank among the leading institutions of its kind in the country must contribute to this extension. It must be productive. The professor, therefore, feels it a duty to his college or university and to his own standing in his profession to keep in touch with what is being accomplished by scholars all over the world in his special department of study. He must himself be a productive scholar. In such work he finds great reward in terms of worth and dignity and intellectual satisfaction.

Under the present salary schedules and administrative methods in many American universities this scholarly productiveness is carried on against greater obstacles than are similarly presented in the universities of Germany and of England. The scholar's work is seldom remunerative in a financial sense. The writer of popular text-books and magazine articles receives not only a fair financial return for his work, but also obtains a popular reputation which is to his advantage. The scholar, on the other hand, who by his industry becomes a first authority in any branch of science or of literature will receive scant financial return for the publication of his monographs, but he wins through such publication high honor and respect among scholars for himself and for his university. During the last decade especially there has been a decided impetus among a few institutions of higher learning to recognize the value of such scholarship and to

foster it. The time has now come when many colleges and universities must attract men capable of such scholarship and offer them in connection with their teaching the opportunities for its cultivation.

The attractiveness of the teacher's profession thus depends upon the love of teaching itself and the opportunity for scholarship. It is obvious that these attractions will have force enough to hold the best men only when the teacher receives a remuneration adequate for the needs of himself and family, and when he has the definite assurance of a sufficient provision for his old age.

I beg to express on the part of the Carnegie Foundation its thanks to the college authorities who have furnished the data upon which the Bulletin is based. College authorities have hitherto been inclined to take the position that the public is not concerned with the details of the financial administration of institutions of learning. I wish to urge that the policy of publicity in these matters is the only true one. The public which supports a college is entitled to know how the college income is spent, what proportion goes into administration, what salaries are paid, how much is spent in advertising and other details of expense. It has been a source of strength to the state universities that these details (including the exact pay of each officer and teacher) must be printed for public inspection. A thoroughgoing financial statement of investments, annual receipts and expenditures should be required by law of all chartered institutions. Colleges and universities should do this without legal requirement as a matter of good faith.

Material for this Bulletin so far as American and Canadian institutions are concerned was obtained by the officers of the Foundation from the institutions themselves. The data concerning the German professor was gathered in a most complete and effective way by Dr. A. A. Snowden acting for the Foundation.

The arrangement and analysis which are presented in the following pages are due to Professor E. L. Thorndike of Teachers College, Mr. John G. Bowman, and Mr. Monell Sayre of the Carnegie Foundation.

HENRY S. PRITCHETT.

April, 1908.



## ORGANIZATION AND CLASSIFICATION OF COLLEGES AND UNIVERSITIES IN THE UNITED STATES AND CANADA

The Carnegie Foundation for the Advancement of Teaching, in seeking to carry out its primary object of establishing a retiring allowance system in the colleges, universities, and technical schools of the United States, the Dominion of Canada, and Newfoundland, has found it necessary to conduct various enquiries into the condition of education in these three countries. Among the first of these studies was one which had to do with the salary and tenure of office of the professor and of other officers of instruction. The results of that study are given in the present bulletin and are based upon data supplied by some seven hundred and fifty institutions in the United States and Canada, the figures given in all cases being presented exactly as they were received from the officers of these institutions.

The organization of colleges and universities in the United States is fashioned very much after that of business corporations; the board of trustees corresponding to the board of directors, the chairman of the board to the chairman of the board of directors, the president of the college to the general manager. The president is the connecting link between the administrative body of trustees on the one side and the teaching body on the other.

In Canada the organization is somewhat more democratic, the governing boards in most cases being elected from the alumni and containing generally members of the faculty.

The instructing staff in most institutions, both in the United States and Canada, consists of professors, associate professors, and assistant or adjunct professors. These form the faculty or permanent body of teachers. In addition there are grades of instructors, lecturers, tutors, and assistants whose positions are in greater or less measure temporary.

Not all of these offices appear in all institutions. Even in some of the larger universities there are only two grades in the faculty, the professor and assistant or adjunct professor. In many smaller colleges the greater part of the teaching staff is included in the faculty with a very limited number of instructors and assistants. The grade of preceptor is unique in Princeton, where its holders are considered of faculty rank.

While this paper will deal, so far as seems necessary to render clear the status of the professor, with all of these grades of the instructing staff, it is upon the holder of the professorial title as embodying the force and tradition of college teaching that the attention will be principally directed.

As was pointed out in the Second Annual Report of the President of the Foundation, the words "college" and "university" have no well settled meaning

in America, nor is the sphere of higher education by any means carefully defined. As a result the degree-giving institutions in these countries present every variety of educational and administrative complexity. Even the well-informed educator is apt to speak of our colleges and universities as if they formed a homogeneous species conforming more or less clearly to some typical condition. Not only is this not the fact, but these institutions do not even fall into any definite number of such species. There is no method of classification which, when applied to the thousand American and Canadian degree-conferring institutions, will enable the student to divide them into clear species. Whatever criterion is chosen will result in placing some institutions in company to which they are not entitled to belong.

The number of students, or the "bigness" of the college or university, is probably the most usual method of classification. But in regard to the number of students one finds a range continuous from institutions with fifty students to institutions with five thousand, and if in this continuous series arbitrary lines are drawn, the groups thus made put together institutions whose consideration side by side could serve no useful purpose; for instance, Johns Hopkins University with the University of Southern California, Yale University with the Temple College, and Williams College with Maryville College.

The size of the teaching staff would naturally be considered a more scientific method of classification, but here again there is a continuous gradation from institutions with five to institutions with five hundred teachers, and groups selected on this basis would result in such incongruities as placing Valparaiso University with Leland Stanford Junior University, Union College, Nebraska, with Amherst College, and Howard College at Birmingham, Alabama, with Ripon College.

The maintenance of professional schools might be considered as a significant line of cleavage, but such a means of demarcation, which would put in the supposedly less important group Princeton, Brown, Wesleyan, Vassar, Bryn Mawr, and Trinity (Hartford), and in the higher group such institutions as Hamline University, Epworth University, Baylor University, Kansas City University, and some forty or fifty other essentially minor institutions cannot be considered an illuminating classification.

The presence of a certain number of resident graduate students is a significant feature of an institution for higher education, and might be used with advantage in a classification if graduate students in the various institutions had to comply with similar requirements before being enrolled. It is true that the graduate student must have received a college degree, but a collegiate degree in the United States means anything from a bachelor of arts or a bachelor of science of such an institution as the Ohio Northern University, Ada, Ohio, up to the bachelor of arts and bachelor of science of such universities as Columbia, and the University of Chicago. Until the collegiate degrees begin to have a definite meaning, it will be futile to base any classification upon the graduate schools, which essentially rest upon these degrees.



The annual income is one of the better ways of grouping American colleges and universities, because a 'dollar' is somewhat the same all over the United States; whereas a 'student' may mean a person in the 'School of Oratory' or a candidate for the degree of doctor of philosophy. The word 'teacher' may mean a full professor working exclusively for his college or a musician in Chicago who is the 'non-resident director' of the schools of music of a chain of small colleges throughout Illinois and the adjacent states, the same individual being counted thus in a score or more of college catalogues. The test of annual income, however, fails to divide institutions into any sharp groups. The institutions range almost continuously from so-called colleges receiving an annual income of eight hundred and fifty dollars up to universities with a yearly budget of a million and a half dollars. It is true that between six hundred and fifty thousand dollars a year income and eight hundred and fifty thousand dollars a year income occurs a break, but there does not seem any solid reason why the ten universities above this break should be considered apart from the Universities of Missouri, Toronto, Pennsylvania, Minnesota, and Nebraska, which come immediately below.

It must also be noted that the figures in regard to annual incomes are not absolutely to be relied upon. Many institutions say frankly that the return under this head is only an approximation, and although the Foundation has made every effort to exclude such extraordinary items as gifts, special legislative appropriations for the erection of buildings, etc., from this calculation of annual incomes, it cannot feel certain that in all cases the figures given under this head represent the normal yearly income of the institution—the income which can be devoted to running expenses. Thus the Ohio State University at Columbus, in estimating its annual income, included the unexpended balance of a legislative appropriation for building operations granted several years before, and Harvard University included in its annual income the value of certain securities which it had sold during the year in order to make a reinvestment. The Foundation has been unable to obtain copies of all college treasurers' reports, and so has been unable to check all the returns made. Such inclusion of building appropriation, bookkeeping items, etc., will doubtless account for some cases where, according to the institution figures, a disproportionately small percentage of the income is devoted to the salaries of the instructing staff. In many small colleges, on the other hand, the regular income is insufficient to pay the salary account, and it is necessary every year to make up the deficiency by the solicitations of gifts.

It may be mentioned here that the income of the University of Oregon, as given in the following table, is the income appropriated for it by the legislature a year and a half ago. The legislature of 1907 passed an act making an annual appropriation to the university of \$125,000, but the referendum has been invoked against this act under the new initiative and referendum provision of the constitution of Oregon and the university, therefore, cannot tell whether it will

receive this appropriation until the referendum is held in June (1908). In the meantime, the university has to maintain itself upon the remnant of the old appropriation. This is the first time that the initiative and referendum has appeared in higher education in the United States.

Besides these reasons for not favoring the annual income as a means of classification, it should also be noted that in many institutions, particularly in women's colleges, the payments of the students for board are included in the income of the college. Wherever this is the case it is indicated in the table by a footnote. But while this footnote guards the reader from error, it does not enable the figures thus "starred" to be used for any useful purpose of calculation. To accept an income so calculated as if it were a real income would indicate that Vassar College was in receipt of a larger revenue than Princeton University, and the Randolph-Macon Woman's College than Radcliffe.

Since American colleges and universities fail under any system of classification to fall into natural groups, the only available method is to choose arbitrarily a system which is most useful for the purpose in view. A system of classification based on the amount of money expended annually for teachers' salaries has been adopted. This system results in incongruities. It places the College of the City of New York above the University of Virginia, and the Agricultural College of Utah above Clark University. But it results in fewer incongruous arrangements than any other single criterion.

There is one grave fault in this system of classification, and that is the impossibility of bringing within it the colleges and universities of the Roman Catholic Church. Almost all of these institutions are under the control of religious orders, and at least in the collegiate and graduate departments the teachers are priests who receive in money but a nominal compensation. The University of Notre Dame du Lac (Congregation of the Holy Cross) and Georgetown University (Society of Jesus), possessing incomes equal to those of Syracuse University and of Colgate University, must thus be omitted from this calculation, together with a number of less wealthy institutions whose revenues are on the scale of Rutgers and of De Pauw. But while the omission of these colleges and universities makes the list look incomplete, the omission is really unimportant in the economic sense. It would be meaningless to attempt a financial comparison between teachers to whom teaching is an ordinary economic function and teachers whose teaching is a part of their priestly duties. At some future time the Foundation hopes to present from the pen of a distinguished ecclesiastic an adequate study of the Roman Catholic institutions.

The calculation on the basis of teachers' salaries will also be inadequate in regard to such institutions as New York University, where, as its syndic reports, a number of professors in all departments donate their services, in whole or in part, to the university. It will be necessary also to consider carefully the cases where houses or apartments are added to the salaries of the members of



the instructing staff. The houses at the University of Virginia and the suites of rooms at some of the colleges of the University of Toronto are a considerable addition to the stated salary, and even when as at Washington and Lee University a charge is made for the houses allotted to professors, the charge, in view of the character of the residence, is a nominal one.

Taking the salaries paid to teachers as a basis of classification of American and Canadian degree-giving institutions, we have the following table:

TABLE I  
INSTITUTIONS CLASSIFIED BY EXPENDITURE FOR TEACHERS' SALARIES

NUMBER OF INSTITUTIONS	FIGURES INDICATING RANGE OF EXPENDITURE FOR TEACHERS' SALARIES
92	\$ 5,000-\$10,000
91	10,000- 15,000
48	15,000- 20,000
29	20,000- 25,000
19	25,000- 30,000
18	30,000- 35,000
17	35,000- 40,000
17	40,000- 45,000
7	45,000- 50,000
6	50,000- 55,000
7	55,000- 60,000
8	60,000- 65,000
8	65,000- 70,000
4	70,000- 75,000
2	75,000- 80,000
4	80,000- 85,000
2	85,000- 90,000
1	90,000- 95,000
3	95,000-100,000
2	100,000-105,000
2	105,000-110,000
4	110,000-115,000
2	115,000-120,000
4	120,000-125,000
8	125,000-150,000
2	150,000-175,000
5	175,000-200,000
3 <sup>1</sup>	200,000-225,000
4 <sup>2</sup>	225,000-250,000
1 <sup>3</sup>	250,000-300,000
4 <sup>4</sup>	300,000-400,000
4 <sup>5</sup>	400,000-500,000
3 <sup>6</sup>	500,000-600,000
University of Chicago	\$699,000
Harvard University	841,000
Columbia University	1,145,000

<sup>1</sup> Johns Hopkins University, Northwestern University, New York University.

<sup>2</sup> McGill University, University of Missouri, University of Nebraska, Ohio State University (Columbus).

<sup>3</sup> University of Minnesota.

<sup>4</sup> Massachusetts Institute of Technology, Princeton University, University of Toronto, Leland Stanford Junior University.

<sup>5</sup> University of California, University of Pennsylvania, University of Wisconsin, University of Illinois.

<sup>6</sup> Cornell University, Yale University, University of Michigan.

It will be seen from the table that five-ninths of the institutions making reports have an instructional pay-roll of less than twenty thousand dollars. Failure to report this item is very common among the smaller institutions. Almost all the large institutions, on the other hand, send in this report. It is therefore safe to say that if the figures were obtainable in every case, two-thirds of the degree-granting institutions of the United States and of Canada would show a budget for teachers' salaries of less than twenty thousand dollars. Seven-ninths of the institutions making reports spend less than fifty thousand dollars on instructional salaries. If the list were complete, institutions of this character would number six-sevenths of those granting degrees.

The average salary of a professor is reported in many more cases by the college authorities than is the college's total annual expenditure in professorial and other instructing salaries. From a study of these figures it appears that one-third of the degree-granting institutions pay on an average less than a thousand dollars a year to their full professors; indeed in thirty-five institutions making reports the average salary of the full professor is less than five hundred dollars a year. These salaries are poor enough under any circumstances, but it must be remembered that most of the institutions paying such salaries are not colleges in any sense, except that they are called colleges and that they confer collegiate degrees. These poorly paid professors are therefore not really doing the work of higher education, nor have they in most cases given themselves adequate preparation for college teaching. In the vast majority of cases these professors are teaching high-school and even grammar-school subjects; they have devoted to their training only the time ordinarily given to preparation by a teacher in secondary education; and their salaries, although small, are not so utterly incommensurate as they would be if paid to a professor doing collegiate work.

To study the financial standing of the teachers in all of the degree-granting institutions would therefore be to deal with a large number of institutions that are simply high schools. Conclusions drawn from such a heterogeneous group would be of little value. Yet to draw a line across this ascending scale of college salary budgets is a difficult task. Wherever the line is drawn there will be reasons for moving it down to include a few more institutions or up to have it exclude a few others.

It will necessarily be an arbitrary line, but at one place in the gradation of institutions it will be less an arbitrary line than if drawn at any other place. A glance at Table I shows that at the point where forty-five thousand dollars a year is spent on salaries to the instructing staff the number of institutions drops sharply. Above this abrupt drop are one hundred and three institutions. Let us therefore take these institutions as typical of American higher education, and see what are the results obtained from an analysis of the status of their professors and instructors. Table II gives these one hundred and three institutions, with their appropriate figures, in the order of their annual expenditure in teachers' salaries.



It may be that there are colleges not included in Table II which are better representatives of higher education than some which are there listed. The table does not pretend to give the one hundred institutions in America which are the best from an educational point of view, any more than the arrangement of institutions in the table is meant to indicate anything beyond the total size of the annual salary accounts. The value of this table is that it is an impersonal selection of colleges and universities according to a fairly representative criterion. For the purposes of this table, it is more valuable to have the selection made according to an objective standard which everyone can estimate, than to have a more exact approximation into which personal judgment enters.

The Foundation recognizes, however, that the salary budget of an institution is closely related to the size of the institution, and that the size of a college is an imperfect method of estimating its educational value. Table IX, in a later part of this paper, is therefore intended as a necessary supplement to Table II. It contains the names of fifty-four institutions, which were not included in Table II on account of the comparative smallness of their expenditure for salaries, and yet which in the opinion of the Foundation ought to be considered if the higher education of the United States is to be rightly estimated. Table IX and the discussion thereon will show what excellent educational results can be obtained by resources which are within moderate limits.

These two tables, the one a purely objective selection on a mathematical basis, the other, an attempt of the Foundation to correct the false impression which a selection only on that standard might give, will together present an approximately complete statement of the financial status of the teacher in the institutions of higher education in the United States and Canada. Nevertheless the total number of institutions which assume to deal with the higher education cannot be disregarded, although many of them are occupied in a large part with education that is not of a collegiate grade. While these colleges of meagre support and limited facilities cannot be grouped, as mentioned before, in significant educational divisions, it is evident to one who studies the countries as a whole that the problem of higher institutions must be taken up from the standpoint of the state or province as a unit. The state governments have themselves in all cases a system of education limited by state lines. The same denominations have erected colleges and universities in different states, so that the problem of higher education is almost necessarily studied from the standpoint of the state.

Looked at from this standpoint, it is evident that if the system of higher education is finally to have unity, strength, and thoroughness, enormous sums of money must be spent to develop these numerous institutions, or else many of them must be in the end abandoned. One can scarcely doubt that the latter course will finally come about by the mere progress of events, for there can be no doubt that many of these institutions are wholly unnecessary. They have been produced partly from a genuine interest in education; partly by denomina-

tional and local rivalry; sometimes by the enterprise of real-estate agents; and under a system of laws which allowed any group of men to come together and call the institution which they founded a college. There are in most states many more such institutions than are necessary for the work of higher education and the multiplication of the number undoubtedly lowers the general standard of institutions.

Thus the State of Iowa contains six institutions of higher education in organic connection with the Methodist Episcopal Church.\* Two of these, Cornell College and Upper Iowa University, are both under the control of the Upper Iowa Conference of that church. The combined revenues of these six institutions are only a little over one-fifth of the sum appropriated each year by the people for the support of the state university. They about equal the annual revenue of Vanderbilt University. It is apparent that here has been a great dissipation of energy, when by a wise concentration of resources the Methodists of Iowa could have built up a single institution comparable with the excellent facilities of Vanderbilt, and able, if its organization had not been too widely extended, to have been an admirable colleague of the state university. The Presbyterian Church has also controlled four colleges in Iowa,† whose incomes, if combined, would have been equal to the incomes of Haverford or of Lafayette.

In Ohio the Methodist Episcopal Church has founded or given its official patronage to five separate institutions of learning.‡ The Presbyterian Synod of Tennessee (North) elects the trustees of Maryville College, and also the trustees of Greenville and Tusculum College. Washington College, while its trustees are not elected by the synod, is a Presbyterian institution. All three of these colleges are located in the mountainous region of East Tennessee. The Northern Presbyterian Church, through its recent union with the Cumberland Presbyterian Church, has also come into possession of Cumberland University in Central Tennessee. The Southern Presbyterian Church has a university in West Tennessee. If all of these institutions are really devoted to higher education, it is evident that one or more of them are superfluous. Throughout the country there are numerous instances of single bodies in one denomination, like the Northern Presbyterian Synod of Tennessee, having within their own limited area more than one college or university. There is something pathetic in the devotion

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\*Cornell College, Mount Vernon; Morningside College, Sioux City; Simpson College, Indianola; Upper Iowa University, Fayette; Iowa Wesleyan University, Mount Pleasant; and Charles City College, Charles City.

†Coe College, Cedar Rapids; Parsons College, Fairfield; Buena Vista College, Storm Lake; Lenox College, Hopkinton. Coe College, however, with the consent of the Synod of Iowa has recently taken into consideration an abrogation of this relationship to the Presbyterian Church.

‡Ohio Wesleyan University, Delaware; Ohio Northern University, Ada; Mount Union College, Alliance; Scio College, Scio; and Baldwin University and the German Wallace College, Berea.



which is poured into some of these unnecessary colleges. One finds an institution in which the few college students who come are instructed by perhaps a single competent teacher, assisted by professors who are young boys just out of college. The salaries are pitifully small, the "dean" in such a college sometimes receiving not more than \$800 a year and the professors \$50 a month. The small endowment which has been given suffices to keep the institution alive and there is often poured into it a large measure of sincere but misguided devotion, the more to be regretted because the students who come to such an institution can usually find much better instruction in near-by colleges, or high schools, where the teaching staff is stronger, the facilities better, and the temptations to low standards are not present. In some parts of the Union, colleges which are only high schools are fulfilling a most useful educational function. It might well be considered by these latter colleges, however, whether it would not be better for education in general, and more dignified on their part, for them to discontinue granting the college degrees, and frankly call themselves high schools or academies or junior colleges.

At an early date the Foundation hopes to present a thorough study of the institutions of higher learning in several states from the point of view of the area, population, material resources, and probable expansion of each state. There are states whose territory is so great or which are so divided by natural barriers that duplicate institutions may be justified, just as there are states whose citizens are justified in thinking more in terms of the future than of the present. All these things should be taken into account in estimating the field of higher education within a single state.

Occasionally in this paper figures will be given and comparisons made which might be considered to imply criticism of the internal administration of institutions. It must be remembered in this connection that there has been but little study in comparative college economics. It would seem that colleges and universities have managed their finances and drawn up their budgets with slight knowledge of similar problems in other colleges and universities. Data on this subject were not easily obtainable. But from the data collected it is evident that widely differing systems of administration prevail.

Table II does not contain the names of all the colleges and universities in the United States and Canada which pay \$45,000 or over in salaries annually to their instructing staffs, because some such institutions did not answer inquiries of the Foundation, or return answers in a form available for statistical purposes. The table contains the names of one hundred and three colleges and universities in the United States and Canada which have given specific information that their total payments in instructing salaries exceed \$45,000 annually.

TABLE

DEGREE-CONFERRING INSTITUTIONS IN THE UNITED STATES AND CANADA  
SALARIES OF THEIR

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age at Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age at Entrance to Grade of Associate Professor
COLUMBIA UNIVERSITY New York City.....	\$1,675,000	\$1,145,000	\$4,289	37.5	.....	.....
HARVARD UNIVERSITY Cambridge, Massachusetts.....	1,827,789	841,970	4,413	39	\$3,600	.....
UNIVERSITY OF CHICAGO Chicago, Illinois.....	1,304,000	699,000	3,600	.....	2,800	.....
UNIVERSITY OF MICHIGAN Ann Arbor, Michigan.....	1,078,000	536,000	2,763	.....	2,009	.....
YALE UNIVERSITY New Haven, Connecticut.....	1,088,921	524,577	3,500	35	.....	.....
CORNELL UNIVERSITY Ithaca, New York.....	1,082,513	510,931	3,135	.....	.....	.....
UNIVERSITY OF ILLINOIS Urbana-Champaign, Illinois.....	1,200,000	491,675	2,851	.....	2,168	.....
UNIVERSITY OF WISCONSIN Madison, Wisconsin.....	998,634	489,810	2,772	32.8	2,081	29.6
UNIVERSITY OF PENNSYLVANIA Philadelphia, Pennsylvania.....	589,226	433,311	3,500	.....	.....	.....
UNIVERSITY OF CALIFORNIA Berkeley, California.....	844,000	408,000	3,300	.....	2,200	.....
LELAND STANFORD JUNIOR UNIVERSITY Stanford University, California.....	850,000	365,000	4,000	35	2,700	32
UNIVERSITY OF TORONTO Toronto, Ontario.....	610,000	324,000	3,600	42.5	.....	.....
PRINCETON UNIVERSITY Princeton, New Jersey.....	442,232	308,650	2,914	35	.....	.....
MASSACHUSETTS INSTITUTE OF TECHNOLOGY Boston, Massachusetts.....	505,000	301,000	3,192	38	2,115	37
UNIVERSITY OF MINNESOTA Minneapolis, Minnesota.....	515,000	263,000	2,600	32	.....	.....
OHIO STATE UNIVERSITY Columbus, Ohio.....	475,000	244,000	2,041	.....	1,692	.....
UNIVERSITY OF NEBRASKA Lincoln, Nebraska.....	425,000	240,000	2,200	35	.....	.....
UNIVERSITY OF MISSOURI Columbia, Missouri.....	655,000	239,110	2,355	33	.....	.....
MCGILL UNIVERSITY Montreal, Quebec.....	425,000	225,000	3,060	.....	2,150	.....
NEW YORK UNIVERSITY New York City.....	303,500	220,000	3,466	.....	.....	.....
NORTHWESTERN UNIVERSITY Evanston, Illinois.....	491,132	218,157	3,265	35	2,325	33
JOHNS HOPKINS UNIVERSITY Baltimore, Maryland.....	311,870	211,013	3,184	.....	.....	.....



APPROPRIATING ANNUALLY \$45,000 OR OVER FOR THE TOTAL PAYMENT OF THE  
INSTRUCTING STAFFS

Average Salary of Assistant Professor	Average Age at Entrance to Grade of Assis- tant Pro- fessor	Average Salary of Instructor	Average Age at Entrance to Grade of Instruc- tor	Average Salary of Assistant	Average Age at Entrance to Grade of Assis- tant	Total Number of Stu- dents in Univer- sity	Total Instruct- ing Staff in Univer- sity	Ratio	Total Number of Stu- dents in Under- graduate Colleges and Non- profession- al Gradu- ate Schools	Total In- structing Staff in Under- graduate Colleges and Non- profession- al Gradu- ate Schools	Ratio
\$2,201	32	\$1,800	29	\$500	24	4,087	559	7.3	2,545	253	10
2,719	33	1,048	28	347	26	4,012	573	7	2,836	322	8.8
2,200	.....	1,450	.....	666	.....	5,070	291	17.4	3,902	211	18.4
1,624	.....	1,114	.....	.....	.....	4,282	285	15	2,899	198	14.6
2,000	29	1,400	24	.....	23	3,306	365	9	2,620	236	11.1
1,715	.....	924	.....	.....	.....	3,635	507	7.1	2,917	283	10.3
1,851	.....	1,091	.....	660	.....	3,605	414	8.7	2,281	190	12
1,636	28.6	1,065	27.5	542	24.5	3,116	297	10.4	2,558	231	11
1,850	.....	1,000	.....	650	.....	3,700	375	9.8	2,618	166	15.7
1,620	.....	1,100	.....	850	.....	2,987	350	8.5	2,451	218	11.2
2,000	29	1,250	26	.....	24	.....	.....	.....	1,668	146	10.7
2,400	35	1,650	27.5	750	21	3,498	368	9.5	1,732	153	11.3
1,824	33	928	.....	.....	.....	.....	.....	.....	1,301	158	8.2
1,653	31	1,064	25	530	22.5	.....	.....	.....	1,415	211	6.7
1,700	26	933	22	284	18	3,889	303	12.8	2,169	116	18.6
1,400	.....	997	.....	703	.....	2,014	127	15.8	1,376	87	15.8
1,500	27.5	1,000	22.5	.....	.....	2,886	173	16.6	1,808	90	20
1,575	31.4	1,047	23.5	706	30.5	2,070	144	14.3	1,360	101	13.4
1,700	.....	1,495	.....	.....	.....	1,163	191	5	542	95	5.7
1,830	.....	500	.....	314	.....	3,110	211	14.7	827	46	17.9
1,535	29	1,250	27	.....	.....	2,485	261	9.5	936	56	16.7
1,344	.....	725	.....	451	.....	651	172	3.7	328	75	4.3

TABLE

DEGREE-CONFERRING INSTITUTIONS IN THE UNITED STATES AND CANADA  
SALARIES OF THEIR

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age at Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age at Entrance to Grade of Associate Professor
UNIVERSITY OF TEXAS Austin, Texas.....	\$339,577	\$199,394	\$2,889	32.5	\$2,300	.....
SYRACUSE UNIVERSITY Syracuse, New York.....	279,000	180,000	1,806	.....	1,291	.....
SMITH COLLEGE Northampton, Massachusetts.....	278,717	177,150	2,150	.....	.....	.....
UNIVERSITY OF KANSAS Lawrence, Kansas.....	285,000	176,000	2,100	.....	1,600	.....
COLLEGE OF THE CITY OF NEW YORK New York City.....	455,000	175,270	4,788	.....	3,189	.....
STATE UNIVERSITY OF IOWA Iowa City, Iowa.....	324,048	173,355	2,152	37.5	.....	.....
DARTMOUTH COLLEGE Hanover, New Hampshire.....	250,000	155,000	2,600	40	2,200	.....
TULANE UNIVERSITY OF LOUISIANA New Orleans, Louisiana.....	274,000	146,000	3,000	35	2,000	29.5
IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS, Ames, Iowa.....	210,000	140,286	2,000	.....	1,600	.....
* WELLESLEY COLLEGE Wellesley, Massachusetts.....	438,493	136,586	1,900	.....	.....	.....
VASSAR COLLEGE Poughkeepsie, New York.....	483,000	129,500	2,896	.....	.....	.....
KANSAS STATE AGRICULTURAL COLLEGE Manhattan, Kansas.....	393,500	129,100	2,140	34.5	.....	.....
INDIANA UNIVERSITY Bloomington, Indiana.....	215,000	129,000	2,400	35	1,707	.....
PURDUE UNIVERSITY La Fayette, Indiana.....	255,000	128,920	2,200	.....	.....	.....
OBERLIN COLLEGE Oberlin, Ohio.....	223,729	128,400	1,941	33	.....	.....
UNIVERSITY OF CINCINNATI Cincinnati, Ohio.....	254,699	123,141	3,000	35	2,000	34
ARMOUR INSTITUTE OF TECHNOLOGY Chicago, Illinois.....	215,000	123,000	2,150	35	1,682	30
UNIVERSITY OF VIRGINIA Charlottesville, Virginia.....	202,190	122,960	3,100	35	.....	.....
UNIVERSITY OF WASHINGTON Seattle, Washington.....	202,000	122,400	1,950	.....	1,700	.....
WESTERN RESERVE UNIVERSITY Cleveland, Ohio.....	179,661	116,141	2,700	.....	1,880	.....
AGRICULTURAL COLLEGE OF UTAH Logan, Utah.....	130,566	115,400	1,800	35	.....	.....
* BROWN UNIVERSITY Providence, Rhode Island.....	214,198	114,630	2,680	37	1,843	33



# II—Continued

## APPROPRIATING ANNUALLY \$45,000 OR OVER FOR THE TOTAL PAYMENT OF THE INSTRUCTING STAFFS

Average Salary of Assistant Professor	Average Age at Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age at Entrance to Grade of Instructor	Average Salary of Assistant	Average Age at Entrance to Grade of Assistant	Total Number of Students in University	Total Instructing Staff in University	Ratio	Total Number of Students in Undergraduate Colleges and Non-professional Graduate Schools	Total Instructing Staff in Undergraduate Colleges and Non-professional Graduate Schools	Ratio
\$1,893		\$1,252		\$ 580		1,693	110	15.3	1,169	80	14.5
978		771		363		2,875	199	14.4	1,807	89	20.3
1,646		1,168	27	800	24				1,482	97	15.2
1,200		700		415		1,786	126	14.1	1,282	97	13.2
2,250		1,445		1,138							
1,271	32.5	832	29.5	200		1,791	149	12	1,200	86	13.9
1,800	32	1,300	26	900	23	1,219	88	13.8	1,161	70	16.5
1,500	27	800	25	400	21	1,433	148	9.6	525	55	9.5
1,300		600		400					1,098	108	10.1
1,350		1,000							1,209	118	10.2
1,690		1,000							996	81	12.2
1,435	32	1,080	28.5	867	24.5				1,034	69	14.9
1,200	33	972	30	229							
1,800		1,000		600		1,713	124	13.8	1,605	119	13.4
1,250		850	28.5			1,406	109	12.8	803	44	18.2
1,300	30	900	28	200	25	994	120	8.2	638	52	12.2
1,328	28	1,140	27	900	26				622	62	10
1,425	26	475	24	250	21	785	91	8.6	467	61	7.6
1,450		1,200		265		1,061	72	14.7	907	64	14.1
1,790		1,000		650		914	155	5.8	566	53	10.6
1,300	30	1,000	24	650	22				530	55	9.6
4,389	30	734	26	388	22				924	81	11.4

TABLE

DEGREE-CONFERRING INSTITUTIONS IN THE UNITED STATES AND CANADA  
SALARIES OF THEIR

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age at Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age at Entrance to Grade of Associate Professor
WASHINGTON UNIVERSITY Saint Louis, Missouri.....	\$158,051	\$114,034	\$2,471	.....	.....	.....
WEST VIRGINIA UNIVERSITY Morgantown, West Virginia.....	200,000	110,000	2,080	35	\$1,600	30
MICHIGAN STATE AGRICULTURAL COLLEGE Lansing, Michigan.....	325,000	110,000	2,300	34	2,000	34
LEHIGH UNIVERSITY South Bethlehem, Pennsylvania.....	166,500	107,000	2,137	30	.....	.....
BRYN MAWR COLLEGE Bryn Mawr, Pennsylvania.....	126,808	106,687	2,500	.....	2,000	.....
TUFTS COLLEGE Tufts College, Massachusetts.....	180,000	104,600	1,870	.....	.....	.....
GEORGE WASHINGTON UNIVERSITY Washington, D.C.....	189,643	101,610	1,693	32.5	.....	.....
PENNSYLVANIA STATE COLLEGE State College, Pennsylvania.....	251,920	97,190	2,010	.....	.....	.....
UNIVERSITY OF COLORADO Boulder, Colorado.....	175,000	95,000	2,050	32	.....	.....
WILLIAMS COLLEGE Williamstown, Massachusetts.....	168,000	95,000	2,714	32	2,100	32
CLEMSON AGRICULTURAL COLLEGE Clemson College, South Carolina.....	271,720	93,650	2,100	.....	1,800	.....
UNIVERSITY OF UTAH Salt Lake City, Utah.....	156,000	85,653	1,881	.....	1,900	.....
AMHERST COLLEGE Amherst, Massachusetts.....	133,214	85,500	2,853	36	1,700	.....
VANDERBILT UNIVERSITY Nashville, Tennessee.....	169,000	83,000	2,800	.....	1,900	.....
BOSTON UNIVERSITY Boston, Massachusetts.....	186,484	82,340	2,419	35	.....	.....
MOUNT HOLYOKE COLLEGE South Hadley, Massachusetts.....	225,000	81,000	1,350	40	.....	.....
STATE COLLEGE OF WASHINGTON Pullman, Washington.....	130,000	80,000	1,750	35	1,700	30
UNIVERSITY OF TENNESSEE Knoxville, Tennessee.....	153,877	78,000	2,000	39	1,600	32
WESTERN UNIVERSITY OF PENNSYLVANIA Pittsburgh, Pennsylvania.....	137,139	76,617	1,864	38	.....	.....
AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS College Station, Texas.....	160,000	74,000	2,000	.....	.....	.....
UNIVERSITY OF NORTH CAROLINA Chapel Hill, North Carolina.....	104,121	72,326	1,975	.....	.....	.....
STATE UNIVERSITY OF OKLAHOMA Norman, Oklahoma.....	110,000	72,274	1,800	.....	.....	.....



## II—Continued

### APPROPRIATING ANNUALLY \$45,000 OR OVER FOR THE TOTAL PAYMENT OF THE INSTRUCTING STAFFS

Average Salary of Assistant Professor	Average Age at Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age at Entrance to Grade of Instructor	Average Salary of Assistant	Average Age at Entrance to Grade of Assistant	Total Number of Students in University	Total Instructing Staff in University	Ratio	Total Number of Students in Undergraduate Colleges and Non-professional Graduate Schools	Total Instructing Staff in Undergraduate Colleges and Non-professional Graduate Schools	Ratio
\$1,400	.....	\$893	.....	.....	.....	1,124	174	6.4	331	45	7.3
1,350	30	1,000	27.5	\$650	.....	667	62	10.7	284	41	6.9
1,200	29	825	25	300	25	.....	.....	.....	683	78	8.7
1,537	27	1,027	24	583	23	.....	.....	.....	674	57	11.8
1,500	.....	1,000	.....	900	.....	.....	.....	.....	362	47	7.7
1,375	.....	875	.....	140	.....	1,083	198	5.4	453	45	10
1,094	27.5	606	25	650	22.5	1,258	196	6.4	643	82	7.8
1,390	.....	990	.....	646	.....	.....	.....	.....	784	81	9.6
1,400	30	800	24	300	22	840	112	7.5	726	57	12.7
1,730	28	1,045	25	775	23	.....	.....	.....	475	58	8.1
1,400	.....	1,100	.....	850	.....	.....	.....	.....	658	41	16
1,700	.....	950	.....	200	.....	565	50	11.3	390	39	10
1,566	.....	1,225	.....	.....	.....	.....	.....	.....	513	38	13.5
1,400	.....	1,000	.....	450	.....	902	110	8.1	342	44	7.7
1,628	28	708	25	.....	.....	1,428	150	9.5	519	34	15.2
1,100	30	950	25	450	22	.....	.....	.....	711	87	8.1
1,400	.....	1,000	25	500	23	.....	.....	.....	1,100	65	16.9
1,300	28	1,000	25	250	24	694	106	6.5	353	34	10.3
.....	.....	999	27	.....	.....	966	144	6.7	187	23	8.1
1,300	.....	1,100	.....	.....	.....	.....	.....	.....	623	52	11.9
1,242	.....	732	.....	143	.....	731	73	10	483	48	10
1,400	.....	1,350	.....	450	.....	394	36	10.9	201	28	7.1

TABLE

DEGREE-CONFERRING INSTITUTIONS IN THE UNITED STATES AND CANADA  
SALARIES OF THEIR

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age at Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age at Entrance to Grade of Associate Professor
CLARK UNIVERSITY						
Worcester, Massachusetts.....	\$145,000	\$70,000	\$3,000	.....	.....	.....
STEVENS INSTITUTE OF TECHNOLOGY						
Hoboken, New Jersey.....	108,000	69,000	3,200	.....	.....	.....
UNIVERSITY OF MAINE						
Orono, Maine.....	135,000	69,357	1,800	34	\$1,500	30
DRAKE UNIVERSITY						
Des Moines, Iowa.....	101,856	67,849	1,500	32	.....	.....
MIAMI UNIVERSITY						
Oxford, Ohio.....	113,000	66,300	2,000	.....	1,650	.....
OHIO WESLEYAN UNIVERSITY						
Delaware, Ohio.....	165,000	66,000	1,800	.....	1,300	.....
STATE UNIVERSITY AND SCHOOL OF MINES OF						
NORTH DAKOTA, University, North Dakota....	153,136	65,500	2,200	35	.....	.....
WESLEYAN UNIVERSITY						
Middletown, Connecticut.....	123,000	65,000	2,575	33	.....	.....
ALABAMA POLYTECHNIC INSTITUTE						
Auburn, Alabama.....	92,000	65,000	2,000	.....	1,700	.....
WORCESTER POLYTECHNIC INSTITUTE						
Worcester, Massachusetts.....	89,594	61,107	2,369	.....	.....	.....
SIMMONS COLLEGE						
Boston, Massachusetts.....	127,024	61,000	2,900	.....	2,266	.....
COLGATE UNIVERSITY						
Hamilton, New York.....	114,532	60,930	1,740	.....	.....	.....
VIRGINIA POLYTECHNIC INSTITUTE						
Blacksburg, Virginia.....	118,000	60,764	1,980	33	.....	.....
CASE SCHOOL OF APPLIED SCIENCE						
Cleveland, Ohio.....	145,500	60,205	2,861	32.5	.....	.....
OHIO UNIVERSITY						
Athens, Ohio.....	165,000	60,160	1,900	25	1,600	25
UNION UNIVERSITY						
Schenectady, New York.....	110,126	60,159	2,300	35	.....	.....
UNIVERSITY OF VERMONT						
Burlington, Vermont.....	105,000	60,000	2,100	35	1,650	30
RENSSELAER POLYTECHNIC INSTITUTE						
Troy, New York.....	110,400	58,721	3,300	35	2,500	35
HOWARD UNIVERSITY						
Washington, D.C.....	91,555	58,619	1,837	32.5	.....	.....
QUEEN'S UNIVERSITY						
Kingston, Ontario.....	88,221	58,351	2,000	.....	.....	.....
UNIVERSITY OF MISSISSIPPI						
University, Mississippi.....	105,000	57,300	2,000	.....	1,325	.....
UNIVERSITY OF SOUTH DAKOTA						
Vermilion, South Dakota.....	80,000	56,000	1,650	.....	.....	.....



## II—Continued

### APPROPRIATING ANNUALLY \$45,000 OR OVER FOR THE TOTAL PAYMENT OF THE INSTRUCTING STAFFS

Average Salary of Assistant Professor	Average Age at Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age at Entrance to Grade of Instructor	Average Salary of Assistant	Average Age at Entrance to Grade of Assistant	Total Number of Students in University	Total Instructing Staff in University	Ratio	Total Number of Students in Undergraduate Colleges and Non-professional Graduate Schools	Total Instructing Staff in Undergraduate Colleges and Non-professional Graduate Schools	Ratio
\$ 1,650		\$ 1,050		\$ 600					159	37	4.2
2,000	29	1,300	23	850	37.5				429	42	10.2
1,200	27.5	800	24	300	23	702	74	9.4	514	50	10.2
1,000	28	800	25	500	23	866	93	9.3	515	20	25.7
1,150		700				570	41	13.9	313	28	11.1
850		700		50		1,178	119	9.8	580	43	13.4
1,550	30	988	25			425	49	8.6	230	30	7.6
1,750	30	1,080	28	575	23				316	20	10.8
1,500		850		250					543	50	10.8
1,725		953							465	46	10.1
1,660		1,054		500					545	59	9.2
1,500		1,300		466					287	24	11.9
1,260	30	800	25	250	21				577	57	10.1
1,443	27.5	989	23.5						440	40	11
900	23	750	23	700	21	1,224	38	32.2	414	21	19.7
1,400	28	1,130	24			627	108	5.7	270	33	8.1
1,375	28	800	25	325	23	497	65	7.6	345	37	9.3
1,800	29	1,500	29	1,200	24				485	29	16.8
1,000		750		400		785	92	8.5	265	17	10.1
1,200		1,000				1,134	80	14.1	914	48	19
1,000				750		344	28	12.2	274	24	11.4
1,100		650		200		359	44	8.1	173	18	9.6

## TABLE

DEGREE-CONFERRING INSTITUTIONS IN THE UNITED STATES AND CANADA  
SALARIES OF THEIR

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age at Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age at Entrance to Grade of Associate Professor
SWARTHMORE COLLEGE Swarthmore, Pennsylvania.....	\$84,000	\$55,335	\$2,100	.....	.....	.....
GEORGIA SCHOOL OF TECHNOLOGY Atlanta, Georgia.....	82,500	55,000	1,945	.....	.....	1,200
UNIVERSITY OF IDAHO Moscow, Idaho.....	99,639	54,920	1,800	.....	.....	.....
TEMPLE COLLEGE Philadelphia, Pennsylvania.....	72,895	54,272	1,500	35	.....	.....
RADCLIFFE COLLEGE Cambridge, Massachusetts.....	90,000	53,000	1	.....	.....	.....
RUTGERS COLLEGE New Brunswick, New Jersey.....	87,000	53,000	2,300	.....	.....	.....
NORTH DAKOTA AGRICULTURAL COLLEGE Fargo, North Dakota.....	114,000	52,150	2,000	30	.....	.....
WASHINGTON AND LEE UNIVERSITY Lexington, Virginia.....	70,000	50,000	2,600	35	.....	.....
STATE UNIVERSITY OF KENTUCKY Lexington, Kentucky.....	90,247	49,250	2,000	33	.....	.....
JAMES MILLIKIN UNIVERSITY Decatur, Illinois.....	64,003	49,160	1,400	30	.....	.....
NORTH CAROLINA COLLEGE OF AGRICULTURE AND MECHANIC ARTS, West Raleigh, N. Carolina....	114,000	49,000	2,000	30	.....	.....
MONTANA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS, Bozeman, Montana.....	133,000	48,650	1,800	.....	.....	.....
UNIVERSITY OF OREGON Eugene, Oregon.....	60,000	47,927	1,800	40	.....	.....
HAVERFORD COLLEGE Haverford, Pennsylvania.....	78,650	45,300	3,440	35	.....	.....
UNIVERSITY OF ROCHESTER Rochester, New York.....	60,334	45,000	2,383	.....	.....	.....

1 Not including Medical School.

2 Including the preceptors as assistant professors.

3 Including payments of students for board.

4 Most of the Faculty receive a small extra compensation for teaching at the Women's College.

5 Faculty consists of members of the Faculty of Harvard University, paid a certain amount per course.

6 Law students are not classified separately from collegiate undergraduates.

7 A combination of the average salary of associates, \$1,469, and the average salary of instructors, \$1,050.

8 Professors who are heads of departments receive on an average \$5,800.



II—Continued

APPROPRIATING ANNUALLY \$45,000 OR OVER FOR THE TOTAL PAYMENT OF THE INSTRUCTING STAFF

Average Salary of Assistant Professor	Average Age at Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age at Entrance to Grade of Instructor	Average Salary of Assistant	Average Age at Entrance to Grade of Assistant	Total Number of Students in University	Total Instructing Staff in University	Ratio	Total Number of Students in Undergraduate Colleges and Non-professional Graduate Schools	Total Instructing Staff in Undergraduate Colleges and Non-professional Graduate Schools	Ratio
\$1,400		\$1,000		\$500					332	36	9.2
1,000		700							562	42	13.3
1,581		1,062							231	28	8.2
		000	22.5			2,343	198	11.8	199	31	6.4
1,600		1,425		850					255	34	7.5
1,300	24	1,060	22	500	22				820	33	24.8
1,500		350		100		468	35	13.3	385	32	12
1,200	32			800	24				466	43	10.8
1,000	25	550	22	250	20				231	32	7.2
1,240	25	786	25	367	23						
1,500		1,100		300					291	32	9
1,400	35	1,000	27	600	25	570	87	6.5	340	34	10
2,240	28	1,220	24	200	22				143	22	6.5
1,750		1,050		500					340	21	16.1

TABLE III  
SUMMARY OF AVERAGE SALARIES IN 102 INSTITUTIONS

Each number in the column headed "Professorship" gives the number of institutions reporting as a professor's average salary the amount opposite that number in the "Scale for Salaries." The column thus reads: "One institution gives an average salary of from \$1,300 to \$1,399; one institution gives an average salary of from \$1,400 to \$1,499," etc.

Each number in the columns headed "Associate Professorship," "Assistant Professorship," and "Instructorship," gives a similar record in the case of these grades.

SCALE FOR ANNUAL SALARIES	PROFESSORSHIP	* ASSOCIATE PROFESSORSHIP	ASSISTANT PROFESSORSHIP	INSTRUCTORSHIP
\$300-\$399	..	..	..	1
400- 499	..	..	..	1
500- 599	..	..	..	2
600- 699	..	..	..	4
700- 799	..	..	..	12
800- 899	..	..	1	12
900- 999	..	..	2	13
1000-1099	..	..	6	29
1100-1199	..	..	3	8
1200-1299	..	2	11	6
1300-1399	1	2	14	4
1400-1499	1	..	14	5
1500-1599	2	1	13	1
1600-1699	2	9	10	1
1700-1799	2	5	9	..
1800-1899	12	3	8	1
1900-1999	7	2	..	..
2000-2099	14	6	3	..
2100-2199	9	4	..	..
2200-2299	3	3	4	..
2300-2399	6	2	..	..
2400-2499	3	..	1	..
2500-2599	2	..	..	..
2600-2699	4	..	..	..
2700-2799	4	1	1	..
2800-2899	5	1	..	..
2900-2999	2	..	..	..
3000-3099	4	..	..	..
3100-3199	4	1	..	..
3200-3299	2	..	..	..
3300-3399	1	..	..	..
3400-3499	1	..	..	..
3500-3599	2	..	..	..
3600-3699	2	1	..	..
3700-3799	..	..	..	..
3800-3899	..	..	..	..
3900-3999	..	..	..	..
4000-4099	1	..	..	..
4100-4199	..	..	..	..
4200-4299	1	..	..	..
4300-4399	..	..	..	..
4400-4499	1	..	..	..
4500-4599	..	..	..	..
4600-4699	..	..	..	..
4700-4799	1	..	..	..

\* The grade of associate professor is only given when there is also the distinct grade of assistant professor in the same institution; otherwise the associate professor is classed throughout this discussion as an assistant professor.



The average salary of a full professorship as shown by Table II ranges from \$1,350 to \$4,788, but there are only eight institutions paying an average salary of less than \$1,800 to the full professor,\* and also only eight institutions giving an average salary of \$3,500 or over.† Thirty-five institutions pay between \$1,700 and \$2,100. Forty-seven institutions pay between \$2,100 and \$3,200. The most common average salary is one between \$2,000 and \$2,100, found in fourteen institutions. Half of the institutions give less than \$2,200. Allowing for the varying numbers of professors in the different institutions, the average salary of a professor in the hundred strongest colleges and universities of America may be safely taken to be close to \$2,500. The most frequent salary will be lower.

The earnings of college and university teachers are not quite so meagre as the figures in this table indicate. Often the college salaries do not represent payment for all the time and energy of the teacher. In schools of science there are considerable opportunities for a professor to increase his salary by fees for expert service. To obtain such figures in detail is impossible. In an engineering school in a large city many professors double their income through outside work. In engineering schools not located in a great city, the outside earnings of the professors would probably be considerably less. In chemistry the opportunities to do expert work, while large, are probably much less than in engineering. In physics they are less than in chemistry; in astronomy they are practically nil. Each branch of science will be affected by its own peculiar conditions and these again influenced by the environment of the institution.

The professors in the so-called "academic" subjects do, in numerous instances, add to their college salaries, but in nothing like the proportion of the professors in the schools of science and in the professional schools. They frequently engage in editorial and literary work, and a few teachers who hold editorial positions with large publishing houses or who have written text-books of national repute possess large outside incomes. It may be remarked, however, that these men generally have the unusual energy or the practical sagacity and

\* These eight are:

1. Mount Holyoke College.....	\$1,350	5. University of South Dakota....	1,650
2. James Milliken University.....	1,400	6. George Washington University..	1,693
3. Drake University.....	1,500	7. Colgate University.....	1,740
4. Temple College.....	1,500	8. State College of Washington....	1,750

† These eight institutions are:

1. College of the City of New York....	\$4,788
2. Harvard University.....	4,413
3. Columbia University.....	4,289
4. Leland Stanford Junior University..	4,000
5. University of Chicago.....	3,600
6. University of Toronto.....	3,600
7. Yale University.....	3,500
8. University of Pennsylvania.....	3,500
also The General Theological Seminary..	4,000 and a residence

initiative that would raise their regular income, no matter what profession or business they made their life work.

The policy of institutions toward the permission of outside work by professors varies. Such participation in practice by professors of engineering and applied science has many advantages for the institution, for students, and for the public. On the other hand, in the case of many teachers the outside work comes to outweigh in importance the regular work of teaching. As a consequence, the teaching depreciates and students suffer. How to steer between a fair participation in practice and full justice to the work of the teacher is one of the difficult problems in engineering education. However advantageous it may be for a professor to engage in outside expert work, this should be, like his private research, an opportunity which he can accept or decline according to his judgment. Extra-university employment should never be forced upon teachers by a salary schedule arranged upon a part time basis. College and university teaching is sufficient to employ to its full capacity the energy of a single mind. The best law schools have accepted this fact. Medical schools will in the future adopt the same plan for the majority of their professors. For the college departments and the graduate schools of a university to entrust the instruction of their students to professors or instructors who are compelled to give to teaching only part of their ability and attention, is an unwise policy. The students must inevitably suffer.

The age at which a man may reasonably expect to attain to a certain salary should always be considered in estimating that salary. Unfortunately, the answers in regard to the average age of appointment to the several academic grades have frequently been neglected by the college authorities and even when given have often been vague. From such replies as have been received, however, there will be given, a little farther on, the average age of entrance to the different groups of salaries. Considering here the title of professor by itself, irrespective of the salary attached, it appears from the fifty-five institutions giving answers on this point, that the range of appointment to a full professorship is from thirty to forty years inclusive. An average of thirty-five years is the most frequent case, with averages from thirty to thirty-five years occurring nearly three times as often as averages from thirty-five to forty years. The average of the averages reported for all the institutions is thirty-four years.

It would therefore appear that for the hundred American colleges and universities making the largest total expenditure for teachers' salaries, the average salary of the full professor is almost \$2,500, and the appointment to a full professorship takes place, usually, when the teacher is thirty-four years old.

To compare these facts with the conditions prevailing in other professions is extremely difficult. It might be possible to arrive at the average income of the lawyer, the physician, and the engineer at the age of thirty-four, but such



an average, representing all lawyers, all physicians, and all engineers, would be of no value for the purpose of comparison with the college professor. The college professor in these one hundred institutions, if we consider both salary and dignity, is the successful man in his profession. He is the teacher who with the advantages of good character and industry has far more than the average teacher's ability. He cannot therefore be compared with all the men, whatever their moral and mental equipment and their powers and habits of application, who enter into some other given profession. The college professor must be compared with such lawyers, such physicians, and such engineers as have done as well in their professions as the college professor has in his.

The kind of men in the other professions who can be compared profitably with the college professor and what is the average income of the professional men so selected for comparison, is something which cannot be worked out exactly. The best that can be done is to obtain the opinion of competent judges and this the Foundation has endeavored to do. It seemed to be the opinion of competent men that the average good lawyer and good engineer, after being out of the professional school about eight or ten years, would be earning in New York between four and five thousand dollars a year. The physician of a similar character and age, it was estimated by distinguished medical authorities, would be earning somewhat more. As the figures for the legal and engineering professions were net and those for the medical gross, the estimates for the three approximated closely. The physician's house rent and similar personal expenditures correspond, in part, to the lawyer's office rent and office expenses. The full professor at Columbia receives on an average \$4,289. At the College of the City of New York the average salary of the full professor is \$4,788, but while the City College is an enormous institution, with about four thousand students, there are only twelve full professors. These professors can hardly be regarded as equal to the average professor in other institutions. They are heads of large departments and compare with the professors in other colleges who receive the maximum compensation. At the Stevens Institute of Technology in Hoboken the average salary of the full professor is \$3,200; at the Polytechnic Institute of Brooklyn it is \$2,783. At the General Theological Seminary each of the seven professors receives \$4,000 and a residence in Chelsea Square. These latter professors, it should be noted, must be classed with the full professors in law and medical schools giving all of their time to the work of teaching. Such professors always receive higher salaries than their colleagues in the non-professional departments.

It would seem as if, in New York City, the better type of lawyer, of physician, and of engineer received at thirty-four a larger income from his profession than the salary paid to the full professor in the institutions of higher learning. The balance in favor of the outside professional man is not however so great as to indicate striking injustice to the college professor. The figures for New York

will probably be true also on a sliding scale for the rest of the country. As we pass to the other large cities and finally to the small college towns, the salaries of the professors decrease and the income of the professional men also. Probably the same proportion is observed; the good local lawyer and physician earning at thirty-four more than the professor at the college, but not very much more.

When the teacher at the average age of thirty-four has been elected to a full professorship in a college or university, he has however practically reached the limit of his earning power, at least in that institution. The successful professional man on the other hand is just beginning to reap the substantial rewards of his ability and his training. The professor, in the vast majority of cases, stays at his average salary of \$2,500, while his intellectual brother in the law, in medicine, and in scientific occupations rises steadily in the large cities to ten, twenty, thirty thousand dollars a year, and in smaller towns to incomes, not so large actually, but relatively large in proportion to the scale of living. This age of thirty-four, the age at which the professor's salary begins to stand still and the outside professional man's to advance rapidly, is just the age, it must also be remembered, when as a rule heavy expenditure for children's education begins.

It will not be unfair, in addition, to consider the maximum rewards which are possible in college teaching and to make comparison. Men are ever affected powerfully by the potentialities of a calling, even when the number who can grasp the prizes are few. A young man of ability in choosing a career is apt to think more of the half dozen great rewards at the top than the safe returns assured to ordinary success. The outside stimulus to the work of a superior man is the possibilities for him, not the actualities for all. Every young English law student imagines himself in the velvet and fur of the Lord Chancellor, just as every midshipman at Annapolis dreams of himself as a future Admiral of the Navy. No one would wish human nature to be otherwise. But in college teaching the attractive prizes, at least in money, do not exist. Of the one hundred institutions having annual budgets for teachers' salaries of over \$45,000, only thirty-eight announce a maximum salary equal to three thousand five hundred dollars. Two institutions with a smaller budget have equally large maxima,\* but it is certain that there are not over sixty institutions for higher education in America whose professors may hope to receive a salary equal to that of the superintendent of schools of such cities as Athens, Ohio, and Fort Wayne, Indiana, and to the income received by fairly successful commercial travellers or superintendents of small factories.

Except by elevation to the presidency of one of the great universities, the utmost limit of expectation of a college professor in salary is eight thousand

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\* The General Theological Seminary . . . \$4,000 and a residence  
Polytechnic Institute of Brooklyn . . . . . 4,000



dollars. This is below the limits set to professors' incomes in Germany. In that country the income from students' fees and from perquisites in the form of outside state appointments raise the salary of a gifted man, notwithstanding the difference in the cost of living, to at least double the American limit. In only five institutions in America is the possibility for a professor greater than five thousand five hundred dollars. Four of these institutions are universities located in New York, Boston, Chicago, and Philadelphia. In these four cities a lawyer, a physician, or an engineer does not have to attain extraordinary eminence to receive several times the salary which is the utmost hope of the college teacher. Good, plodding men, who attend diligently to their profession but who are without unusual ability, often obtain in middle life an income considerably higher than a man of the greatest genius can receive in an American professor's chair.

The presidency of a great university demands talent and administrative skill of a very high order. The salaries are not much above the upper range of what a professor may receive. In the great cities of the country the really great lawyers earn from sixty to one hundred thousand dollars a year. The prevalent opinion seems to be that the physicians and surgeons of great eminence and reputation receive from fifty to one hundred thousand dollars a year. Exceptional years occur when even these figures are exceeded by the leaders of the professions. It must be considered what effect these facts, not to speak of the fortunes possible to business skill, have upon the high-spirited youth about to choose a life work. If he selects college or university teaching the utmost limit he can hope for will be the financial success attained by the average man of his class who chooses the other professions. In other callings great ability brings a proportionate reward; the best man may expect from twenty to forty times the reward of the average man. In industry and business the best man may expect from two hundred to four hundred times the reward of the average man. But in teaching and scholarship the best man cannot, under present conditions, expect much more than from two to four times the financial reward of the average man. No matter how great the ability of the college professor as a teacher or scholar, there is no working probability that he will ever be paid more than a minor officer of a railroad or industrial company.

It is not strange that the possibility of teaching seldom presents itself seriously nowadays to the best students in a large graduating class. That gifted men do enter the profession of teaching is due solely to the love of teaching, study, and research. The fiscal arrangements of the profession of college teaching are just such as would attract a mediocre person who did not expect that in any other activity the world held out to him very much. The need for larger prizes is pressing.

Below is a table giving the institutions which announce a maximum professor's salary of three thousand dollars or over. In this table house rent

when given as a part of the salary is counted at from \$600 to \$1,400 according to the relevant facts.

TABLE IV  
MAXIMUM SALARIES

INSTITUTIONS ANNOUNCING A MAXIMUM PROFESSOR'S SALARY OF \$5,500 OR OVER:

Columbia University.....	New York, New York
Cornell University.....	Ithaca, New York
Harvard University.....	Cambridge, Massachusetts
University of Chicago.....	Chicago, Illinois
University of Pennsylvania.....	Philadelphia, Pennsylvania

INSTITUTIONS ANNOUNCING A MAXIMUM PROFESSOR'S SALARY OF FROM \$4,500 UP TO \$5,500:

College of the City of New York.....	New York, New York
General Theological Seminary .....	New York, New York
George Washington University.....	Washington, D. C.
Haverford College.....	Haverford, Pennsylvania
Johns Hopkins University.....	Baltimore, Maryland
Leland Stanford Junior University.....	Stanford University, California
Northwestern University.....	Evanston, Illinois
Tulane University of Louisiana.....	New Orleans, Louisiana
University of California.....	Berkeley, California
University of Illinois .....	Urbana-Champaign, Illinois

INSTITUTIONS ANNOUNCING A MAXIMUM PROFESSOR'S SALARY OF FROM \$3,500 UP TO \$4,500:

Clark University.....	Worcester, Massachusetts
McGill University.....	Montreal, Quebec
Massachusetts Institute of Technology.....	Boston, Massachusetts
New York University .....	New York, New York
Polytechnic Institute of Brooklyn.....	Brooklyn, New York
Princeton University.....	Princeton, New Jersey
Rensselaer Polytechnic Institute.....	Troy, New York
Rutgers College.....	New Brunswick, New Jersey
Stevens Institute of Technology.....	Hoboken, New Jersey
University of Cincinnati.....	Cincinnati, Ohio
University of Michigan.....	Ann Arbor, Michigan
University of Minnesota.....	Minneapolis, Minnesota
University of Missouri .....	Columbia, Missouri
University of Texas.....	Austin, Texas
University of Toronto.....	Toronto, Ontario
University of Wisconsin.....	Madison, Wisconsin
Washington University.....	Saint Louis, Missouri
Wesleyan University.....	Middletown, Connecticut
Yale University.....	New Haven, Connecticut

INSTITUTIONS ANNOUNCING A MAXIMUM PROFESSOR'S SALARY OF FROM \$3,000 UP TO \$3,500:

Adelphi College.....	Brooklyn, New York
Amherst College.....	Amherst, Massachusetts
Armour Institute of Technology.....	Chicago, Illinois
Boston University.....	Boston, Massachusetts
Brown University.....	Providence, Rhode Island
Bryn Mawr College.....	Bryn Mawr, Pennsylvania
Case School of Applied Science.....	Cleveland, Ohio
Colorado School of Mines.....	Golden, Colorado
Dartmouth College.....	Hanover, New Hampshire
Drury College.....	Springfield, Missouri
Lehigh University.....	South Bethlehem, Pennsylvania

TABLE IV—*Continued*

## INSTITUTIONS ANNOUNCING A MAXIMUM PROFESSOR'S SALARY OF FROM \$3,000 UP TO \$3,500

Massachusetts Agricultural College.....	Amherst, Massachusetts *
North Carolina College of Agriculture and Mechanic Arts.....	West Raleigh, North Carolina
Pennsylvania State College.....	State College, Pennsylvania
Ripon College.....	Ripon, Wisconsin
Rochester Theological Seminary.....	Rochester, New York
Saint Louis University.....	Saint Louis, Missouri
Simmons College.....	Boston, Massachusetts
Smith College.....	Northampton, Massachusetts
State University of Iowa.....	Iowa City, Iowa
Swarthmore College.....	Swarthmore, Pennsylvania
Trinity College.....	Hartford, Connecticut
Union University.....	Schenectady, New York
University of Nashville.....	Nashville, Tennessee
University of Rochester.....	Rochester, New York
University of Virginia.....	Charlottesville, Virginia
Vanderbilt University.....	Nashville, Tennessee
Vassar College.....	Poughkeepsie, New York
Western Reserve University.....	Cleveland, Ohio
Western University of Pennsylvania.....	Pittsburgh, Pennsylvania
Williams College.....	Williamstown, Massachusetts
Worcester Polytechnic Institute.....	Worcester, Massachusetts

Before drawing any minute or final conclusions from such a list, one should know not only the announced maximum, but also the conditions of its attainment and especially the number of professors who actually receive it. The maximum may be limited to one professional school, or to deans, or to heads of departments. For instance, Columbia University has a maximum salary of \$8,000, but an average salary for full professors of \$4,289. Evidently the maximum must be rare. In the case of Columbia University, in fact, the maximum represents not what an entirely satisfactory professor working in the prime of life may expect, but what a very few men retain as a result of a fiscal policy once in force but long discontinued. In the University of Chicago, again, the maximum of \$7,000 is not a maximum for a professor, but a maximum for a professor who is also a head of a department. The maximum for a professor is announced as \$4,500.

Comparisons between particular institutions will therefore be helpful only if made from more detailed study of the institutions than the present data afford. It is certain that there is a great difference in administrative policy in this respect. Some institutions adhere very closely to the practice of not setting a maximum higher than their financial prospects allow them to expect to give to every competent man who holds a professorship on to maturity. Others set maxima which they can give, or at least do give, to very few individuals. The General Theological Seminary, Dartmouth College, Lafayette College, the University of South Carolina, and the University of the South are instances of maxima to which every professor is certain or almost certain to attain. Haver-

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\* Salaries over \$2,500 are, however, due to very special circumstances.



ford College, Tulane University, and Wesleyan University are instances where a few well-known professors may receive high salaries.

The former method has the advantage of letting a member of the staff know absolutely what he may expect from his institution, provided his work is satisfactory. It will, so far as the amount of salary decides the professor's choice between positions, tend to bring about a uniformity of ability within an institution and a clearer gradation of institutions with respect to the ability of their teaching staffs. A low *average* salary does not, of course, prevent an institution from retaining an eminent teacher, but a low *maximum* will always tend to do so. Whether this evenness of ability within an institution is as healthy as a moderate variation is questionable. Two other results of the policy are almost certainly bad. First, it works injustice to some individuals. A good man becomes attached to an institution by loyal affection; to work well he needs to feel that his home, his friends, and his career are to be in that place; there is a real waste involved in his moving from one institution to another. His best qualities thus make him suffer a pecuniary loss. In the second place, the administrative authorities will rarely be entirely consistent. When the most gifted men on the staff are offered financially better positions elsewhere, the president will be tempted to reduce the amount of teaching required of the professor as a substitute for the advance in salary which the fixed policy denies. The result may be that the most gifted men come in contact with the fewest students, that the man whose work is worth most to the college does the least work for it.

The method of offering a few unusual salaries to the few unusual men has the advantage of flexibility, such as the differences between individuals in the quality and quantity of work done for an institution theoretically demand. It seems more likely to operate to raise the conventional maxima than does the former method, and while it may be less likely to improve the conventions in respect to average salaries, it would tend greatly if adopted by a number of prominent institutions, to put teaching on a level of attractiveness and dignity with the other professions. The present finances of a college or university may forbid an increase of a thousand or fifteen hundred dollars to every professor's salary, but they will nearly always permit one salary being increased five or ten thousand dollars.

Although the study of the hundred strongest colleges and universities of the United States and of Canada probably gives more trustworthy results than to consider every institution which chooses to call itself a college or university, nevertheless it will not be without value to consider in addition all of the degree-conferring corporations in the American English-speaking countries. In Table V are given the figures for all the institutions making a definite statement in regard to the salary paid to the full professor.

TABLE V  
SUMMARY OF AVERAGE SALARIES OF FULL PROFESSORS IN AMERICAN  
COLLEGES

NUMBER OF INSTITUTIONS	AVERAGE SALARY OF FULL PROFESSOR	NUMBER OF INSTITUTIONS	AVERAGE SALARY OF FULL PROFESSOR
1	\$ 200-\$ 299*	6	\$2,700-\$2,799
9	300- 399	6	2,800- 2,899
15	400- 499	3	2,900- 2,999
17	500- 599	4	3,000- 3,099
29	600- 699	4	3,100- 3,199
28	700- 799	2	3,200- 3,299
25	800- 899	1	3,300- 3,399
30	900- 999	1	3,400- 3,499
40	1,000-1,099	2	3,500- 3,599
29	1,100-1,199	2	3,600- 3,699
35	1,200-1,299	0	3,700- 3,799
15	1,300-1,399	0	3,800- 3,899
17	1,400-1,499	0	3,900- 3,999
22	1,500-1,599	1	4,000- 4,099
16	1,600-1,699	0	4,100- 4,199
12	1,700-1,799	1	4,200- 4,299
26	1,800-1,899	0	4,300- 4,399
7	1,900-1,999	1	4,400- 4,499
22	2,000-2,099	0	4,500- 4,599
10	2,100-2,199	0	4,600- 4,699
7	2,200-2,299	1	4,700- 4,799
8	2,300-2,399	0	4,800- 4,899
4	2,400-2,499	0	4,900- 4,999
4	2,500-2,599	1	5,000†
7	2,600-2,699		

The range of these averages is very great. Even allowing for the lowering effect of part-time teachers upon an institution's average and for failures to report board and lodging given in addition to the cash salary, it cannot be doubted that the degree-giving institutions vary from an average provision for the full professor of from less than \$500 a year up to \$4,788. Ninety-seven institutions pay an average of \$2,000 or over; only forty-six pay an average of \$2,500 or over; only twenty pay an average of \$3,000 or over; and as noted before only nine pay an average of \$3,500 or over.

About a third of the American colleges and universities report an average salary to a full professor of less than \$1,000 and not quite half report an average salary of more than \$1,000 but less than \$2,000.

Associate professor, adjunct professor, assistant professor, and preceptor

\*The lower salaries may be added to in some cases by board and lodging given, but not reported.

†This is in a sense too low, the average salary being \$4,000 and an excellent house in New York City. But the professor would probably not feel free to let the house. (The General Theological Seminary.)

are grades below that of the full professor, yet entitling the holders to seats in the faculty. These different grades are not sharply defined. Forty-three of the institutions we are considering in Table II report both the grades of associate professor and assistant professor; the rest have only one grade of professor below the possessor of the full professorial title. In some of these latter cases the professor of lower rank is called an associate or adjunct professor. But in the above table we have only considered a professor to be an associate professor when in addition to that rank there is also in the same institution the distinct grade of assistant professor. When an institution has only one such lower professorial grade, it is grouped as an assistant professorship.

For the grade of associate professors the range is more limited than for a full professorship, the lowest average being \$1,200 (Georgia School of Technology) and the highest \$3,400 (Harvard University). There are only five institutions of the forty reporting this grade which pay to it \$1,500\* or less and only four which give it over \$2,500.† Two-thirds of the institutions give an average salary of \$2,000 or less; the most frequent case is an average salary of from \$1,600 to \$1,700; almost half of the institutions give a salary less than \$1,800. Allowing as before for the fact that the larger institutions pay higher salaries, the average salary of the associate professor in the one hundred strongest institutions is about \$1,900.

In the grade of assistant professor, which is reported by ninety-eight of these one hundred and three institutions, the lowest average is \$850 (Ohio Wesleyan University) and the highest average is \$2,719 (Harvard University). There are three institutions reporting an average salary for this grade below \$1,000‡ and six reporting an average salary above \$2,000.§ Three-fourths of the institutions report an average salary between \$1,200 and \$1,800; the most frequent salary

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* Georgia School of Technology . . . .	\$1,200
Syracuse University . . . . .	1,291
Ohio Wesleyan University . . . . .	1,300
University of Mississippi . . . . .	1,325
University of Maine . . . . .	1,500
† Harvard University . . . . .	\$3,600
College of the City of New York . .	3,189
University of Chicago . . . . .	2,800
Leland Stanford Junior University.	2,700
‡ Ohio Wesleyan University . . . . .	\$ 850
Ohio University (Athens) . . . . .	900
Syracuse University . . . . .	978
§ Harvard University . . . . .	\$2,719
University of Toronto . . . . .	2,400
College of the City of New York . .	2,250
Haverford College . . . . .	2,240
Columbia University . . . . .	2,201
University of Chicago . . . . .	2,200



is one between \$1,300 and \$1,500; half of the institutions pay less than \$1,500. Making allowances for the higher salaries paid by a few large universities, the average salary of an assistant professor in the one hundred strongest colleges and universities of the United States and of Canada is about \$1,600. There are a great many reasons why this salary might be regarded as a more representative one than the average of \$2,500 received by the full professor. It is attained at the age when a man, if not already married, should be enabled to marry and raise a family. Its inadequacy for a scholar who has devoted a number of years in training for this position is obvious.

The grade of instructor represents as a rule a teacher giving full time to the college, but doing so at the beginning of his career, with high probability of advancement if he proves his worth. The strongest colleges of America range in respect to their average salary for such a grade from \$350 to \$1,800. There is a continuous series from the low to the high rate; three-fourths of the institutions give between \$700 and \$1,200; a third give between \$900 and \$1,100; nearly half of them give \$950 or less; only one in six gives over \$1,200. It appears that a college teacher of the superior gifts and training demanded by these institutions receives during the first four years of his permanent professional career on the average a little over \$1,000.

The position of an assistant is that of an apprentice. It varies greatly in responsibility in different institutions and in the different departments of an institution. In some cases the assistant may have practical control of a large class. In others he is hardly more than a helper in a laboratory. The range of his salary is wide. It varies from an average salary in some institutions of only \$100 a year to an average salary at the Rensselaer Polytechnic Institute of \$1,200 a year. In seven cases the assistants receive \$900 or more.\* The average salary is about \$500. This remuneration is not quite so paltry as it appears upon its face. The salary usually means payment for only a fraction of the assistant's time and energy, the balance being devoted to study in the institution for a graduate or professional degree. Generally the tuition charges for these courses are remitted to the assistant. Sometimes also, by acting as the proctor of a dormitory, he receives a room free of rent. The position of assistant being more truly a combination of a fellowship and an apprenticeship to the profession of teaching than a regular teaching position, these lower limits of college salaries should not be regarded as if they were remuneration for regular work.

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* Rensselaer Polytechnic Institute.	\$1200
College of the City of New York.	1138
University of Wyoming.....	1000
Armour Institute of Technology..	900
Bryn Mawr College.....	900
Dartmouth College.....	900
Hamilton College.....	900

In considering these grades below the rank of full professor, attention should likewise be paid to the age at which the salary they pay is attained. From such replies as were received, it appears that the average age of entrance to a rank allotted an average salary of from \$1,000 to \$1,500 varies amongst institutions from 21 to 33 years, with most of the institutions reporting ages from 24 to 30 inclusive. The most typical case is an average age of 27.

The typical case or central tendency for the age of entrance to a grade allotted an average salary of from \$1,500 to \$2,000 is an average age of 30. The variations amongst the institutions reporting range from 25 to 37, with nearly nine-tenths lying between 27 and 35 inclusive.

When the average salary is from \$2,000 to \$2,500, the average age of attaining the grade varies in the returns from 27½ to 40, with six-tenths lying between 29 and 35 and with the typical case or central tendency at 33.

The returns for the age of entrance to average salaries of \$2,500 or over, that is, to the rank of full professor, is, as mentioned before, thirty-four years. Of course, the well paid professorships are attained later than those with smaller salaries attached. The data in regard to these ages are not numerous enough to warrant conclusive statements. It would appear as if professorships worth from \$2,500 to \$3,000 were given to men between 30 and 42½ years and that it is between 35 and 39 years that a man is elected to the professorship paying \$3,000 a year or more.

These figures, 27 years for entrance to a position worth \$1,000 to \$1,500, 30 years for entrance to a position worth from \$1,500 to \$2,000, 33 years for entrance to a position worth from \$2,000 to \$2,500, and 34 years for entrance to a position worth \$2,500 or over, are strictly the approximate averages of the average ages at entrance as reported by institutions. They do not directly give the average age of the individual men at entrance to a position worth \$1,000 to \$1,500 and so on, in these institutions. To answer with certainty the question, "At what age may such a man as these institutions are willing to appoint to a position worth \$1,000, or \$2,000, or \$3,000, expect to reach that position?" records of each individual's past salaries and ages at the time each was allotted would be necessary. However, the result from such an adequate study will probably not diverge far from the following answer: A man acceptable to these institutions for a position worth \$1,250 will be on the average 28 years old; a man appointed to a position worth \$1,750 will be on an average 31 years old when appointed to it; one appointed to a position worth \$2,250 will be on the average 33 years old; one appointed to a position worth \$2,500 or over will be on the average 34 years old.

A table is herewith given (Table VI) showing the average age at present of the full professor in the various faculties of thirteen typical American universities. This will enable a comparison to be made with Tables XXIII and XXIV in the discussion devoted to professors in German universities.

TABLE VI

## AVERAGE AGE OF FULL PROFESSORS IN THIRTEEN AMERICAN UNIVERSITIES

UNIVERSITY	Number of Professors	AVERAGE AGE IN GIVEN FACULTY					Average of Faculties
		Liberal Arts	Science	Theology	Law	Medicine	
Brown University.....	27	46.5	52.7	....	....	....	49
Columbia University....	123	51.2	44.4	....	49.2	46.0	45.5
Cornell University.....	63	49.4	43.5	....	44.4	52.8	47.7
Harvard University....	91	49.3	50.9	51.7	55.0	55.8	51.6
Leland Stanford Junior University.....	27	44.9	46.6	....	....	....	45.8
Princeton University...	46	44.4	46.7	....	....	....	45.4
Tulane University of Louisiana.....	37	45.3	41.0	....	62.2	55.5	48.2
University of California.	67	52.9	50.4	....	54.0	47.0	49.9
University of Chicago....	65	46.5	47.4	51.3	39.8	49.0	46.6
University of Illinois...	30*	43.9	48.4	....	43.8	....	46.1
University of Virginia..	27	48.1	56.0	....	45.3	43.0	49.2
Vanderbilt University..	11†	49.2	44.6	....	....	....	46.7
Yale University.....	92	50.8	50.4	50.8	52.2	43.4	49.9

While, as stated in the early part of this Bulletin, the total annual income of an institution does not seem to be the best method of classification, nevertheless, as the income of an institution must play a large part in the determination of salaries, it is interesting to notice the relation between these two classes of statistics.

Table VII gives the figures in tabular form.

Central general tendencies can naturally be observed. Thus in institutions with annual incomes below \$10,000, the central tendency is toward an average professor's salary of \$700; in institutions receiving from \$10,000 to \$25,000, the tendency is toward an average salary of somewhat over \$1,000; in institutions receiving from \$25,000 to \$50,000, it is toward \$1,250; in institutions receiving from \$50,000 to \$100,000, it is toward \$1,700; in institutions receiving from \$100,000 to \$250,000, it is toward \$2,000; in institutions receiving from \$250,000 to \$600,000, it is toward \$2,500; in the ten with the largest incomes, it is toward \$3,400.

\* This does not include professors in Medical School.

† This does not include professors in Law and Medical Schools.



TABLE VII

## THE AVERAGE SALARIES OF FULL PROFESSORS ARRANGED ACCORDING TO THE INCOMES OF INSTITUTIONS

SCALE FOR AMOUNT OF AVERAGE SALARY (in dollars)	Scale for Annual Incomes of Institutions (in dollars.) Under each head is given the number of institutions paying salaries as indicated by scale in first column.						
	750,000 or over	250,000 to 600,000	100,000 to 250,000	50,000 to 100,000	25,000 to 50,000	10,000 to 25,000	1,000 to 10,000
200 to 399	....	....	....	....	....	1	0
400 " 599	....	....	....	....	2	11	19
600 " 799	....	....	....	2	13	17	25
800 " 999	....	....	....	....	11	24	20
1,000 " 1,199	....	....	....	7	15	39	5
1,200 " 1,399	....	....	2	3	19	25	1
1,400 " 1,599	....	....	2	11	18	8	....
1,600 " 1,799	....	....	5	7	11	....	....
1,800 " 1,999	....	2	13	11	6	2	....
2,000 " 2,199	....	7	16	11	2	1	....
2,200 " 2,399	....	4	3	8	1	....	....
2,400 " 2,599	....	....	5	1	1	....	....
2,600 " 2,799	....	2	8	1	1	....	....
2,800 " 2,999	1	3	4	....	....	....	....
3,000 " 3,199	1	5	3	....	....	....	....
3,200 " 3,399	1	1	2	....	....	....	....
3,400 " 3,599	1	2	....	1	....	....	....
3,600 " 3,799	1	1	....	....	....	....	....
3,800 " 3,999	....	....	....	....	....	....	....
4,000 " 4,199	1	....	....	....	....	....	....
4,200 " 4,399	1	....	....	....	....	....	....
4,400 " 4,599	1	....	....	....	....	....	....
4,600 " 4,799	....	1	....	....	....	....	....
4,800 " 4,900	....	....	....	....	....	....	....
5,000	....	....	1	....	....	....	....

There is, however, great variability within each group, some large institutions failing to afford even mediocre salaries\* and some small institutions offering exceptionally high salaries.†

\* Instances are: Syracuse University, income \$279,000, professor's average salary \$1,806; Ohio State University (Columbus), income \$475,000, professor's average salary \$2,041.

† Instances are: Haverford College, income \$78,650, professor's average salary \$3,440; Dalhousie University, income \$40,250, professor's average salary \$2,300; General Theological Seminary, income \$126,643, professor's average salary \$5,000; Victoria University, income \$48,485, professor's average salary \$2,600. The last institution is affiliated with the University of Toronto and is perhaps an illustration of how an institution's income is released for better salaries when it partially gives up teaching the sciences with their expensive laboratories, etc.

**TABLE VIII**  
**THE AVERAGE SALARIES OF INSTRUCTORS ARRANGED ACCORDING TO THE**  
**INCOMES OF INSTITUTIONS**

SCALE FOR AMOUNT OF AVERAGE SALARY (in dollars)	Scale for Annual Incomes of Institutions (in dollars). Under each head is given the number of institutions paying salaries as indicated by scale in first column.						
	750,000 and over	250,000 to 600,000	100,000 to 250,000	50,000 to 100,000	25,000 to 50,000	10,000 to 25,000	1,000 to 10,000
0 to 99	....	....	....	....	....	1	1
100 " 199	....	....	....	1	2	....	3
200 " 299	....	....	....	....	1	6	5
300 " 399	....	....	1	1	6	10	8
400 " 499	....	....	1	1	8	10	7
500 " 599	....	1	1	4	12	11	6
600 " 699	....	....	2	8	16	17	....
700 " 799	....	3	8	10	15	7	1
800 " 899	....	4	8	7	3	4	....
900 " 999	1	5	9	6	4	1	....
1,000 " 1,099	3	8	14	9	7	1	....
1,100 " 1,199	2	3	4	4	1	....	....
1,200 " 1,299	1	3	4	5	....	....	....
1,300 " 1,399	....	1	4	....	....	....	....
1,400 " 1,499	2	2	....	1	....	....	....
1,500 " 1,599	1	....	1	....	2	....	....
1,600 " 1,699	....	1	....	....	....	....	....
1,700 " 1,799	....	....	....	1	....	....	....
1,800 " 1,899	1	....	....	....	....	....	....
1,900	....	....	....	....	....	....	....

The average salary of an instructor varies with the amount of an institution's income in the same way as was noted in the case of the professor's salary. Its central tendency rises:

From \$375 for institutions with incomes below \$10,000;

To \$550 for institutions with incomes of from \$10,000 to \$25,000;

To \$650 for institutions with incomes of from \$25,000 to \$50,000;

To \$850 for institutions with incomes of from \$50,000 to \$100,000;

To \$950 for institutions with incomes of from \$100,000 to \$600,000;

To \$1,100 for institutions with incomes of \$750,000 and over.

Within each income group there is great variability, some large institutions again reporting salaries almost impossible to live on\* and some small institutions making excellent provision for their young teachers.†

\* Illustrations are: Harvard University, income \$1,827,789, average salary of instructor \$1,048; Cornell University, income \$1,082,513, average salary of instructor \$924; University of Virginia, income \$202,000, average salary of instructor \$475.

† Instances are: Washington and Jefferson College, income \$46,880, average salary of

Data concerning salary schedules should finally be considered in connection with the cost of living in different localities. Information concerning the cost of living is obtainable, though with much difficulty, but the returns are not adequate to a proper statistical treatment. The matter must therefore be left to a common-sense judgment, with the single reminder that the cost of such a life as a scholar or man of science *ought to lead* will probably not vary much with localities in this country. If he is in a small town far away from any centre of art, science, and expert skill, he needs a liberal allowance for travel, books, pictures, and the like, for the occasional summoning of expert medical or other service, and for the distant education of his children.

The most important thing in regard to the income of college teachers in relation to the cost of living in the community in which the college is situated, is whether the salary paid by the college is above or below the indispensable line of comfort. In every community there is a certain sum which represents what a man with a family needs to pay his landlord, his butcher, his grocer, and his tailor. This sum must be fixed having in mind the quarter of the town in which the college professor should live, how his table should be provided, and what his wife and children should wear. These requirements need not be luxuriously provided for, but they should be provided for as a well educated and refined man needs they should be. If the institution in which he teaches pays the professor a few hundred dollars above this minimum line of comfort, he is free from worry, his family life is cheerful, he can give the best that is in him to his institution and its students. An income only a few hundred dollars below this level puts the professor in a situation involving worry and anxiety. Heretofore little has been done to fix salaries in respect to any fair or even possible line of comfort. And it has therefore happened that at the same time when small economies in salaries have lowered an entire faculty into discontent and inefficiency, an amount sufficient to raise the teaching body into an atmosphere of content and cheerful work has been spent on facing the campus buildings with marble, and in giving to the athletic field the appearance of a Roman amphitheatre.

It may be objected that most of these superfluous educational accessories came to an institution by way of gift. That such is the fact is comparatively unimportant. If academic authorities approached their constituencies emphasizing that a college is really only its teachers, those teachers would not long be regarded as of less importance than buildings and athletic fields. But the providing of adequate salaries is generally the last item on the administration program and the items ahead of it in the list win at the teachers' expense. A

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instructor \$1,750; Rutgers College, income \$87,000, average salary of instructor \$1,425. It ought perhaps to be mentioned that at Washington and Jefferson College there is no intermediate grade between the instructor and the full professor.



well-known teacher recently wrote, in sadness rather than bitterness, "The buildings of our university have been paid for by our professors."

A first scrutiny of Table II will cause each reader to notice certain educational policies. One of the most striking of these policies is that adopted by Haverford College. The income of Haverford College is exceeded by the income of about one hundred and fifteen colleges and universities in the United States and Canada, but only eight of these one hundred and fifteen institutions pay higher salaries to their professors. The least rich of these eight has an income six times larger than Haverford. That the policy of the college is to concentrate its energies upon salaries rather than equipment and other expenses can be seen also from the following note, appended by the college authorities to the answer returned to the enquiries of the Foundation: "The expense of teaching is great—(1) because this is an expensive suburb of Philadelphia and rents and wages are high, (2) because we have very few men in lower grades, but *professors* teach lower as well as upper classes, (3) because we want men of human interests and character as well as scholarship, and the choice is limited, (4) because we mean to keep some men who command high salaries in the best universities." In the light of this announcement by the college authorities it is not surprising that the faculty at Haverford is of very high merit.

It should be noted that this high average of the Haverford professors does not mean good salaries paid to some men at the expense of the incomes of other men. The minimum salary paid to a professor is \$1,700. The Haverford associate professor and instructor hold the same relative financial position among associate professors and instructors as the Haverford full professor among full professors. It is evident, also, that these high salaries do not mean the combination of what would be two salaries elsewhere and therefore an unusual burden of work placed upon the Haverford teacher, for the proportion of professors to students is one to eleven and the proportion of the entire instructing force to students is one to seven. The entrance requirements of Haverford are equal to those required by the largest universities and it is one of the thirteen colleges and universities in the United States requiring 14 units or over for admission, that admits students to the freshman class only by examination. Haverford College is, therefore, apparently entitled to the conspicuous credit of having placed before everything else the consideration of its teachers.

It will be evident, on the other hand, to any one who examines the table with care, that in some of the institutions mentioned in this table the excessive low salaries are closely connected with the effort to spread instruction over an enormous range of subjects.

At the top of Table II there is an interesting comparison which must necessarily attract the notice of a reader. Columbia University and Harvard University have almost the same number of persons in their teaching forces, 559 and 573 respectively, and about an equal proportion of each force are

professors. The average salaries at Harvard for the full professors and for the assistant professors are higher than are the average salaries at Columbia for the full professors and for the adjunct professors; yet the total annual amount expended by Columbia in salaries to the instructing staff is \$300,000 larger than is the similar expenditure by Harvard University. After making allowance for the salary budget appropriated by Radcliffe College (Barnard College being included in the figures for Columbia University) this excess of the Columbia budget is equal to the total annual income received by an institution of the size of Dartmouth College. At least half of this difference between the salary expenditures at Columbia and at Harvard is due to the difference in the salaries paid in the teaching grades below faculty rank. The average instructor at Harvard receives \$753 a year less than the average instructor at Columbia, and in the grade of assistant the difference between the two college departments is about \$150. There is also a considerable difference between the average salary of the junior officer at the College of Physicians and Surgeons of Columbia, and the similar average for the Medical School of Harvard. These amounts of \$750 and \$150 do not seem much in themselves, but when they are multiplied by the large number of teachers who in a great university such as Harvard hold the titles of instructor and assistant, the result is a saving of about \$130,000 a year, enough to pay all the salaries of all the professors and of all the other teachers at either Brown University, or at Wellesley, or at Vassar.

The figures hitherto given have been for the hundred institutions in the United States and Canada paying the largest amount of aggregate salaries. This has seemed to be the most representative criterion. And yet it may appear to be putting too much stress upon the mere size of an educational institution, for the salary budget is generally roughly proportioned to the size. In Table IX are therefore given the figures concerning fifty-four well-known institutions each of which is carrying on its work at an expenditure for salaries of less than \$45,000 a year.

The institutions in this table report an average salary for professors ranging from \$1,175 (Franklin College, Indiana) to \$2,783 (Polytechnic Institute of Brooklyn). The average salary of \$900 and the three averages reported as \$1,000 are all in institutions which give, in addition to this monetary return, the accommodation of room and board. These salaries can, in consequence, be conservatively estimated at \$1,350 and \$1,400 respectively. Therefore, only four of the fifty-four institutions pay an average salary of less than \$1,300 (Cornell College, Monmouth College, Coe College, and Franklin College).

Four institutions report an average salary above \$2,000: Polytechnic Institute of Brooklyn, \$2,783; Dalhousie University, \$2,300; Rose Polytechnic Institute, \$2,250; Colorado School of Mines, \$2,233. Six other institutions pay an average of \$2,000 a year: Adelphi College, Bowdoin College, Lafayette College, Trinity College (Hartford), De Pauw University, and the University



of South Carolina. Half of the institutions in this table pay to their professors an average salary of \$1,600 or less, the average of the averages being \$1,652. The most frequent average salary, however, is that of \$1,800.

Considering in detail these average salaries for professors, it will be noticed that all those below \$1,500 a year are paid either at colleges located in communities where living is comparatively inexpensive or they are salaries paid under unusual circumstances in addition to the providing of rooms and board. The latter institutions are Mount Saint Mary's College, Pennsylvania College for Women, Wilson Female College, and Elmira College. The colleges whose salaries are apparently adjusted to a comparatively inexpensive scale of personal expenditure are Franklin College, \$1,175; Coe College, \$1,200; Cornell College (Mount Vernon, Iowa), \$1,220; Monmouth College, \$1,270; Olivet College, \$1,300; Ripon College, \$1,336; Clarkson School, \$1,300; Lawrence University, \$1,400; Drury College, \$1,400; Carleton College, \$1,400; Marietta College, \$1,433; Bates College, \$1,433.

Of the institutions paying the highest average salaries, the Brooklyn Polytechnic Institute, \$2,783, and Adelphi College (Brooklyn), \$2,000, are in a large city where the cost of living is high. This is also true, although probably not to so large a degree, at Trinity, Rose, and Lafayette. The position of Dalhousie is noteworthy. Living in Nova Scotia, according to information supplied by the university authorities, is inexpensive as compared with most parts of the United States, yet the average salary of a professor at Dalhousie, \$2,300, is on a par with the salaries at McGill University and the University of Nebraska, institutions possessing incomes ten times larger than the total annual revenue of Dalhousie.

It will be noticed that, with the exception of a few state universities in southern and western states, only four of these institutions in the United States (DePauw University, Lawrence University, the University of Wooster, and the University of the South) have called themselves "universities." The others have confined themselves to the work which is indicated by their name of college\* and this is probably one reason of their strength. Three of these institutions have borne the name university for over half a century. DePauw University received the name in its charter of 1837, when it was incorporated as The Indiana Asbury University. Lawrence University assumed the title when, in 1852, it changed its name from "The Lawrence Institute of Wisconsin."

\* Centre College is the collegiate department of the Central University of Kentucky, but the figures are only for the college, not the entire university.



TABLE

## DATA CONCERNING PARTIAL LIST OF INSTITUTIONS IN WHICH ANNUAL

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age of Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age of Entrance to Grade of Associate Professor
IOWA COLLEGE						
Grinnell, Iowa.....	\$60,000	\$44,250	\$1,500	33	\$1,000	27
POLYTECHNIC INSTITUTE OF BROOKLYN						
Brooklyn, New York.....	59,000	43,150	2,783			
UNIVERSITY OF THE SOUTH						
Sewanee, Tennessee.....	60,845	42,836	1,500	35		
DEPAUW UNIVERSITY						
Greencastle, Indiana.....	67,000	42,750	2,000			
POMONA COLLEGE						
Claremont, California.....	50,000	42,000	1,500			
LAFAYETTE COLLEGE						
Easton, Pennsylvania.....	77,142	40,374	2,000			
BOWDOIN COLLEGE						
Brunswick, Maine.....	72,063	39,550	2,000	30		
UNIVERSITY OF WYOMING						
Laramie, Wyoming.....	84,299	39,080	1,900	34	1,700	
COLORADO COLLEGE						
Colorado Springs, Colorado.....	160,000	38,000	1,775			
DICKINSON COLLEGE						
Carlisle, Pennsylvania.....	61,748	37,576	1,700	33		
ADELPHI COLLEGE						
Brooklyn, New York.....	54,000	37,575	2,000			
UNIVERSITY OF ARIZONA						
Tucson, Arizona.....	90,000	37,300	1,900			
UNIVERSITY OF SOUTH CAROLINA						
Columbia, South Carolina.....	72,857	36,730	2,000		1,500	
CORNELL COLLEGE						
Mount Vernon, Iowa.....	55,436	36,702	1,220	32		
WOMAN'S COLLEGE OF BALTIMORE						
Baltimore, Maryland.....	67,151	36,450	1,818	32.5		
TRINITY COLLEGE						
Hartford, Connecticut.....	43,045	36,250	2,000			
BELOIT COLLEGE						
Beloit, Wisconsin.....	75,000	35,000	1,600	32		
WASHINGTON AND JEFFERSON COLLEGE						
Washington, Pennsylvania.....	46,880	34,500	1,823			
ALLEGHENY COLLEGE						
Meadville, Pennsylvania.....	47,000	34,200	1,800	34		
LAWRENCE UNIVERSITY						
Appleton, Wisconsin.....	43,000	34,000	1,400	31		
DALHOUSIE UNIVERSITY						
Halifax, Nova Scotia.....	40,240	33,500	2,300			
TRINITY COLLEGE						
Durham, North Carolina.....	63,000	33,060	1,850			
LAKE FOREST COLLEGE						
Lake Forest, Illinois.....	41,165	32,932	1,800	33		

<sup>1</sup> Interest at 5% on \$500,000 additional endowment will be available in 1909.

# IX

## EXPENDITURE FOR INSTRUCTING SALARIES RANGES FROM \$10,000 TO \$45,000

Average Salary of Assistant Professor	Average Age of Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age of Entrance to Grade of Instructor	Average Salary of Assistant	Average Age of Entrance to Grade of Assistant	Total Number of Students in Institution	Total Instructing Staff in Institution	Ratio	Total Number of Students in College	Total Instructing Staff in College	Ratio
\$ 950	27	\$ 800	23	\$ 153	21.5	*553	35	15.8	450	31	14.5
1,234		392							250	40	6.2
1,100	27	700	24	500	23	*317	34	9.3	119	11	10.8
850		743				*753	35	21.5	548	25	21.9
†1,050		800				*317	31	10.2	267	23	11.6
1,370		750		475					442	36	12.2
1,350	27	1,000	25			394	53	7.4	305	20	15.2
1,500		1,100		1,000		*222	30	7.4	110	21	5.2
1,056		602				*607	44	13.7	407	31	13.1
†1,200	25	525				392	26	15	314	18	17.4
1,400		625				*463	27	17.1	295	24	12.2
1,200		1,120							*63	27	0
1,200		800				*285	29	9.8	191	18	10.6
†900	28	760	25			*455	39	11.6	395	27	14.6
†1,167	31.5	958	31.5	533	24.5				340	28	12.1
1,400		1,000		500					208	22	9.4
1,200	28	1,000	26						303	30	10.1
		1,750		300					264	16	16.5
1,200	30	1,000	25	300	22.5				266	19	14
950	28	700	26	300		*493	33	14.9	327	26	12.5
†1,500		600				358	48	7.4	266	21	12.6
750		650		166		*280	26	10.7	264	23	11.4
1,300	30	1,000	25						*217	19	11.4

\* Catalogue for 1906-07.

† Exclusively in college.

† Entitled "Associate Professors."

TABLE

DATA CONCERNING PARTIAL LIST OF INSTITUTIONS IN WHICH ANNUAL

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age of Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age of Entrance to Grade of Associate Professor
RANDOLPH-MACON WOMAN'S COLLEGE Lynchburg, Virginia.....	\$130,713	\$32,707	\$1,639	37.5		
HAMILTON COLLEGE Clinton, New York.....	50,000	32,500	1,800			
ROSE POLYTECHNIC INSTITUTE Terre Haute, Indiana.....	43,756	31,600	2,250	37.5	\$1,800	32.5
COLORADO SCHOOL OF MINES Golden, Colorado.....	110,000	30,500	2,233			
UNIVERSITY OF WOOSTER Wooster, Ohio.....	43,057	31,380	1,500	37.5		
UNIVERSITY OF MONTANA Missoula, Montana.....	71,500	30,100	1,800			
OLIVET COLLEGE Olivet, Michigan.....	46,600	29,200	1,300	35		
ALBION COLLEGE Albion, Michigan.....	37,078	28,775	1,550	30		
KENYON COLLEGE Gambier, Ohio.....	\$47,000	\$28,500	1,600	32.5		
COLLEGE OF WILLIAM AND MARY Williamsburg, Virginia.....	43,000	28,495	1,800			
MOUNT SAINT MARY'S COLLEGE Emmitsburg, Maryland.....	50,000	28,000	\$1,000			
BATES COLLEGE Lewiston, Maine.....	39,167	26,500	1,433	32		
WILSON COLLEGE Chambersburg, Pennsylvania.....	\$110,000	26,500	\$1,000	32		
EARLHAM COLLEGE Richmond, Indiana.....	58,000	24,000	1,550	30		
WABASH COLLEGE Crawfordsville, Indiana.....	41,608	23,550	1,600			
CARLETON COLLEGE Northfield, Minnesota.....	34,900	23,150	1,400	32		
COLBY COLLEGE Waterville, Maine.....	56,939	23,033	1,800	32.5		
MARIETTA COLLEGE Marietta, Ohio.....	24,244	22,670	1,433			
CENTRE COLLEGE Danville, Kentucky.....	32,369	21,827	1,600	30		
HOBART COLLEGE Geneva, New York.....	37,200	21,657	1,700	35	1,400	30
WELLS COLLEGE Aurora, New York.....	\$90,041	21,150	1,600	36.5	1,275	30
DRURY COLLEGE Springfield, Missouri.....	29,000	21,000	1,400			

<sup>1</sup> Including payments of students for board.

<sup>6</sup> Including Bexley Hall, the theological seminary.

<sup>7</sup> Also board, apartments, and laundry.



# IX—Continued

## EXPENDITURE FOR INSTRUCTING SALARIES RANGES FROM \$10,000 TO \$45,000

Average Salary of Assistant Professor	Average Age of Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age of Entrance to Grade of Instructor	Average Salary of Assistant	Average Age of Entrance to Grade of Assistant	Total Number of Students in Institution	Total Instructing Staff in Institution	Ratio	Total Number of Students in College	Total Instructing Staff in College	Ratio
\$1,307	30	\$ 749	27.5	\$ 558	22.5	*358					
1,300		1,100		900					178	19	9.3
1,200	27.5	1,000	24	500					229	23	9.9
1,550		1,175							*294	17	17.2
†1,100	37.5	600	26.5	300	24	547	34	16	362	28	12.9
		1,100		600		*247	20	12.3	189	19	9.9
1,000	30	800	27.5			*255	29	8.7	211	20	10.5
900	25	615	23.5			*383	25	16.1	239	17	14
		900							118	15	7.8
†1,000		600									
†400		†150									
		1,167	26	183	23				438	23	19
†900	28	†700	28	†250	22	*344	34	10.1	240	22	10.9
		600	25	77	20	*380	31	12.2	325	27	12
930									*291	17	17.1
†1,300		750	24			*315	20	15.7	281	17	16.5
†1,350	27.5	900	26.5	400	24				*237	15	15.8
†1,120		750		115		275	21	13	129	16	8
		1,000	22	250	21				*154	20	7.7
1,100	28	700	24	300	21				104	16	6.5
900	30	750							169	24	7
687		453				*461	21	21.9	269	14	19.2

\* Catalogue for 1906-07.

† Entitled "Associate Professors."

‡ Entitled "Adjunct Professors."

§ Catalogue does not separate the students in the department of music, of art, and of physical culture from the students in the college.

TABLE

DATA CONCERNING PARTIAL LIST OF INSTITUTIONS IN WHICH ANNUAL

Institution	Total Annual Income	Annual Appropriation for Salaries of Instructing Staff	Average Salary of Professor	Average Age of Entrance to Grade of Professor	Average Salary of Associate Professor	Average Age of Entrance to Grade of Associate Professor
COE COLLEGE						
Cedar Rapids, Iowa.....	\$28,137	\$20,989	\$1,200	30		
RIPON COLLEGE						
Ripon, Wisconsin.....	47,100	20,900	1,336			
MIDDLEBURY COLLEGE						
Middlebury, Vermont.....	28,491	20,160	1,870	32		
PENNSYLVANIA COLLEGE FOR WOMEN						
Pittsburgh, Pennsylvania.....	41,000	20,000	900	28		
ELMIRA COLLEGE						
Elmira, New York.....	38,139	18,672	1,000	30		
MONMOUTH COLLEGE						
Monmouth, Illinois.....	36,967	18,500	1,270	35		
FRANKLIN COLLEGE						
Franklin, Indiana.....	37,552	15,000	1,350	28		
CLARKSON MEMORIAL SCHOOL OF TECHNOLOGY						
Potsdam, New York.....	24,540	11,950	1,350			
KNOX COLLEGE						
Galesburg, Illinois.....	28,012	11,509	1,400	32		

\*Also board, apartments, and laundry.

# IX—Continued

## EXPENDITURE FOR INSTRUCTING SALARIES RANGES FROM \$10,000 TO \$45,000

Average Salary of Assistant Professor	Average Age of Entrance to Grade of Assistant Professor	Average Salary of Instructor	Average Age of Entrance to Grade of Instructor	Average Salary of Assistant	Average Age of Entrance to Grade of Assistant	Total Number of Students in Institution	Total Instructing Staff in Institution	Ratio	Total Number of Students in College	Total Instructing Staff in College	Ratio
\$ 700	25	\$ 500	22	\$135	20	.....	.....	.....	*206	28	7.3
†800	.....	708	.....	.....	.....	*201	24	8.3	157	20	7.8
.....	.....	1,100	31	.....	.....	.....	.....	.....	*178	11	16.1
.....	.....	*600	24	.....	.....	.....	.....	.....	45	10	4.5
.....	.....	.....	.....	.....	.....	278	17	16.3	197	12	16.4
1,075	.....	675	25	.....	.....	*425	25	17	233	18	12.9
.....	.....	.....	.....	.....	.....	*214	15	14.2	160	13	12.3
.....	.....	.....	.....	.....	.....	.....	.....	.....	*80	11	7.2
1,200	29	800	25	.....	.....	*521	27	19.2	224	19	11.7

\* Catalogue for 1906-07.

† Entitled "Associate Professors"



DePauw University consists of the Asbury College of Liberal Arts, a School of Music (degree of Bachelor of Music conferred), and a School of Art (degree of Bachelor of Painting conferred). There are six graduate students. Lawrence University consists of a College of Liberal Arts, a Department of Art and Painting (no degree conferred), a School of Music (degree of Bachelor of Music conferred), a School of Commerce (degree of Bachelor of Commercial Science conferred), and a School of Expression (degree of Bachelor of Arts in Oratory conferred). The University of Wooster consists of a College, a Conservatory of Music, a School of Art, and a Bible and Missionary Training School. These schools of music and commerce differ but little from the usual musical and business departments attached to most of the smaller educational institutions throughout the middle west. It is unfortunate that the name university assumed at a period when the meaning of the words "college" and "university" were not sharply defined in America, should hamper the correct appreciation of institutions which can serve education efficiently only by confining their work to that of a good college.

Lake Forest was chartered as a university in the same period, 1857, when an institution was named according to what it hoped for in the remote future, not according to what it had a reasonable expectation of accomplishing. The trustees have not deemed it expedient to obtain a new charter, but with admirable judgment the institution is designated in its publications as Lake Forest College.

The other institutions in the table confine themselves somewhat strictly to the usual collegiate departments, and call themselves colleges. Dickinson College has for a long time had a law school, Trinity College, Durham, has recently established a law school, Bowdoin College has a medical school, and Kenyon College has been connected since its foundation with a theological seminary of the Episcopal Church.

It will be seen that with the exception of the state universities the only institutions in this table that are giving, within the limits of an expenditure for salaries of less than \$45,000 a year, university work in the professional meaning of the term, are Dalhousie University and the University of the South. The other institutions are really colleges. And among the state institutions the University of South Carolina has only a school of law and normal courses in addition to its regular college departments, and the other state and territorial universities are those of the far west, where full professional schools have not been established.\* As the fifty-four institutions on this list were selected with care, the small proportion of universities is not without significance. It is clear that it is practically impossible for a university to exist in most parts of the United

\*The University of Wyoming has a college of engineering and a school of mines. Most of these state universities have also the usual music, art, and business departments.

States and do good work at an expenditure for teachers' salaries of less than \$45,000 a year. It is equally clear that an excellent college can be supported at that annual expenditure for salaries.

The distinctive grade of associate professor exists at only seven of the institutions in this table. The grade of assistant professor is found at all but eleven. At seven institutions the assistant professor receives an average salary of \$900 or less; Cornell College, \$900; Albion College, \$900; Wells College, \$900; DePauw University, \$850; Trinity College (Durham), \$750; Coe College, \$700; Drury College, \$687. Even making allowances for the low cost of living in the communities where these institutions are located, it is evident that an office to which such a salary is attached cannot be the assistant professorship as that grade is regarded at most of the strong universities and colleges.

The University of Wyoming, the Colorado School of Mines, and Dalhousie University are the only institutions which pay the assistant professor as much as \$1,500 a year, and the excellent teaching given in the latter institution is no doubt intimately related to the relatively high salaries paid to teachers. The average salary of the assistant professor of the institutions in this table is about \$1,200.

The average salary of the instructor reported by these institutions ranges from \$392 to \$1,750. The Polytechnic Institute of Brooklyn pays to this grade \$392, the College of William and Mary, \$350; Drury College \$453; Coe College, \$500; Dickinson College, \$525; and Earlham College and Dalhousie University each \$600. On the other hand, Washington and Jefferson College pays \$1,750, Hamilton College, Bates College, Middlebury College, the Colorado School of Mines, and the Universities of Arizona, Montana, and Wyoming each \$1,100. The instructor therefore must mean a very different grade at different institutions. The most usual average for an instructor is \$1,100. The average for all the averages in this table, however, is only a little above \$800.

At most of the institutions in this table the assistant is, from his salary, simply a helper in a laboratory or a theme-reader, giving but a few hours' work to the institution, for the average salary of this grade is only \$300. This is what the assistant receives at Harvard. At Lafayette College, Trinity College (Hartford), Randolph-Macon Woman's College, the Woman's College of Baltimore, Rose Polytechnic Institute, and the University of the South, the assistant receives \$500, the salary paid to that grade at Columbia University. At the University of Montana the assistant gets \$600, at Hamilton College, \$900, and at the University of Wyoming \$1,000.

The ages at which men receive the salaries given by the institutions in Table IX do not differ materially from the ages previously discussed in this paper as applicable to the one hundred large institutions. The age at which a man attains a full professorship is, on an average, thirty-three years. It was thirty-four years in the larger institutions.



## PROPORTION OF TEACHERS TO STUDENTS IN RELATION TO EDUCATIONAL EFFICIENCY

In Tables II and IX are given in addition to the data concerning salaries certain statistics in regard to the student attendance and the size of the instructing staff. The number of students and teachers is given for each institution as a whole and also for the undergraduate colleges and the non-professional graduate schools.

These figures must be used with great caution. It would be a mistake to attach to them any extraordinary significance. For instance, the instructing staff includes every person who teaches in the institution except special lecturers and undergraduate assistants. In one institution a small instructing staff may be composed largely of members of the faculty giving their entire time and attention to teaching; in another institution a large instructing staff may consist in considerable part of young assistants just out of college and of all kinds of irregular and part-time teachers. The ratios in such cases can not be profitably compared. Similarly, although the student registration does not include summer students or preparatory students or students in six weeks' courses in agriculture, etc., it does group together those who make very different demands upon the teaching facilities of an institution. A girl who takes one lesson a week in "oratory," and a town boy who goes out to the college gymnasium one evening a week to exercise under the direction of the instructor in athletics, is often recorded in the catalogue along with the regularly matriculated college student who attends sixteen hours of lectures a week. By repeating the figures for the undergraduate colleges and the non-professional graduate schools, many of these occasional students have been eliminated, as have also the great array of teachers in medical and dental schools and other professional schools who give but a brief attendance at the institution.

The second set of totals and ratios is therefore more valuable than the first, and it is this second set of ratios which has been used in Table X. But comparisons even here are more likely to be fallacious than valuable. Besides the different composition of the teaching force in different institutions it has often been difficult to decide, from a professor's title in a catalogue, in what department of the institution he teaches, and whether he ought to be counted in the second set of totals or only in the first. The merit of the data lies in the fact that the same rules have been applied to all the institutions treated, and although in any particular case the ratio between teachers and students may not repre-



sent the actual facts, it is evident that, considering the one hundred and three institutions in Table II as a whole, very varying ratios between the numbers in the instructing staff and in the student body do actually exist. This variation amongst institutions is a very important fact. Why should one institution of those given in Table II need three times as many teachers per hundred students as another institution, or inversely, how can one of them get along with a third as large a staff per hundred students as another has? Should one college provide five times as many (or as few) teachers to a hundred students as another? This great variability may mean (1) great differences in the educational problems met by different institutions, all doing their work with the same adequacy, or it may mean (2) that the resources of some are inadequate, or it may mean (3) that the resources of some are not perfectly employed, or it may mean a combination of two or three of these conditions. A painstaking investigation of the exact condition of the staff, students, and curriculum in each institution is evidently very much needed.

## TABLE X

### PROPORTION OF TEACHERS TO STUDENTS IN UNDERGRADUATE COLLEGES AND NON-PROFESSIONAL GRADUATE SCHOOLS OF INSTITUTIONS IN TABLE II

#### RATIO OF 1 TO 4

Clark University, Worcester, 4.2

Johns Hopkins University, 4.3

#### RATIO OF 1 TO 5

McGill University, 5.7

#### RATIO OF 1 TO 6

Temple College, 6.4

Haverford College, 6.5

Massachusetts Institute of Technology, 6.7

West Virginia University, 6.9

#### RATIO OF 1 TO 7

State University of Oklahoma, 7.1

James Millikin University, 7.2

Washington University, 7.3

Rutgers College, 7.5

State University of North Dakota, 7.6

University of Virginia, 7.6

Bryn Mawr College, 7.7

Vanderbilt University, 7.7

George Washington University, 7.8

#### RATIO OF 1 TO 8

Williams College, 8.1

Mount Holyoke College, 8.1

Union College, Schenectady, 8.1

Western University of Pennsylvania, 8.1

University of Idaho, 8.2

Princeton University, 8.2

Michigan State Agricultural College, 8.7

Harvard University, 8.8

#### RATIO OF 1 TO 9

Montana State College of Agriculture and Mechanic Arts, 9	Simmons College, 9.2
Swarthmore College, 9.2	Tulane University of Louisiana, 9.5
University of Vermont, 9.3	Pennsylvania State College, 9.6
University of South Dakota, 9.6	
Agricultural College of Utah, 9.6	

#### RATIO OF 1 TO 10

Columbia University, 10	Armour Institute of Technology, 10
Tufts College, 10	University of Utah, 10
University of North Carolina, 10	University of Oregon, 10
Wesleyan University, 10	Iowa State College of Agriculture and Mechanic Arts, 10.1
Worcester Polytechnic Institute, 10.1	Howard University, 10.1
Virginia Polytechnic Institute, 10.1	Stevens Institute of Technology, 10.2
Wellesley College, 10.2	Cornell University, 10.3
University of Maine, 10.2	Western Reserve University, 10.6
University of Tennessee, 10.3	Alabama Polytechnic Institute, 10.8
Leland Stanford Junior University, 10.7	
State University of Kentucky, 10.8	

#### RATIO OF 1 TO 11

University of Wisconsin, 11	Case School of Applied Science, 11
Yale University, 11.1	University of California, 11.2
Brown University, 11.4	University of Mississippi, 11.4
Lehigh University, 11.9	Colgate University, 11.9

#### RATIO OF 1 TO 12

University of Illinois, 12	Washington and Lee University, 12
Vassar College, 12.2	University of Cincinnati, 12.2
University of Colorado, 12.7	

#### RATIO OF 1 TO 13

University of Kansas, 13.2	Georgia School of Technology, 13.3
University of Missouri, 13.4	Purdue University, 13.4
Ohio Wesleyan University, 13.4	Amherst College, 13.5
State University of Iowa, 13.9	

#### RATIO OF 1 TO 14

University of Washington, 14.1	University of Texas, 14.5
University of Michigan, 14.6	Kansas State Agricultural College, 14.9

#### RATIO OF 1 TO 15

Smith College, 15.2	Boston University, 15.2
University of Pennsylvania, 15.7	Ohio State University (Columbus), 15.8

#### RATIO OF 1 TO 16

Clemson Agricultural College, 16	University of Rochester, 16.1
Dartmouth College, 16.5	Northwestern University, 16.7
State College of Washington, 16.9	

RATIO OF 1 TO 17

New York University, 17.9

RATIO OF 1 TO 18

Oberlin College, 18.2

University of Chicago, 18.4

University of Minnesota, 18.6

RATIO OF 1 TO 19

Queen's University, 19

Ohio University (Athens), 19.7

RATIO OF 1 TO 20

University of Nebraska, 20

Syracuse University, 20.3

RATIO OF 1 TO 24

North Dakota Agricultural College, 24.8

RATIO OF 1 TO 25

Drake University, 25.7

No one informed concerning higher education in America will doubt that the differences in the problems met is one chief factor. Johns Hopkins University provides more teachers for a hundred students than the University of Chicago, partly because it has a larger proportion of graduate work. The college of Clark University is reported with one teacher to every four students, partly because it is a recent establishment. Proof of the fact that different institutions need different provisions because of the different work they do and ought to do is superfluous.

Nor will any one informed concerning higher education deny that the teaching resources of some institutions are inadequate. The significance of our data lies in the fact that unless there is some waste in some institutions, there is an enormous inadequacy in others. After making every allowance for differences in the proportion of part-time professors and assistants, for differences in the character of the work, and the like, it seems strange that we should find among institutions doing work of approximately equal difficulty, some with a provision of *over twice as many teachers as others*.

This fact is, perhaps, the most important one that appears in comparing institutions for higher education. It leads at once to this question, 'Given a college of liberal arts and sciences, or a medical school, or a law school of a certain size, what is the number of teachers that the administrative authority has a right to demand of the financial authorities for the proper conduct of the work,' and to the further question, 'Given a certain sum for salaries for such a college or school of a certain size, how much must be sacrificed in the quality of the teachers in order to get enough teachers?'

If the country as a whole could afford a teacher for every three university



students, it might be wise economy; but if the country as a whole can afford only one for eleven, it may be a waste for one institution to have many more than its share. There is presumably an optimum proportion of instructors to students, movement toward which brings increasing educational returns for each teacher added, and movement beyond which brings diminishing returns.

Some university teachers will deny this doctrine of diminishing returns, and very many of them will deny that any institution in this country has passed beyond this optimum proportion. The matter needs investigation, but the experience of elementary and secondary education and the general facts of human nature support the belief that, after the groups in which students are divided for instruction reach a certain minimum, further division produces very little educational gain. Indeed, there is some support for the belief that a class of fifteen students in the majority of undergraduate or professional subjects is *absolutely* better than a class smaller in number and that a seminar or pro-seminar or other specialized course is more efficient with eight students than with less. In any event it is as much the duty of the educational administration to use funds economically as it is the duty of society to provide more money for higher education. With all due regard to the necessity of presenting a wide range of subjects for study and of giving students close personal attention, it seems proper that an increase of the staff of a university beyond twelve men for a hundred students, or of the staff of a college beyond nine men for a hundred students, should be regarded not, as it now is, as an unmixed good, but as a step that may demand justification as truly as would an equal decrease.

The second question suggested by the great variation in the number of students per instructor was, 'Given a certain sum for salaries for a university or college of a given size, how much must be sacrificed in the quality of the teachers in order to have enough teachers?' As a concrete sample of this problem let us suppose an undergraduate college like that for men at Princeton, or for women at Mt. Holyoke, to have enrolled 200 freshmen, 160 sophomores, 150 juniors, and 140 seniors, a total of 650, and to have an allowance for salaries of \$70,000. Shall it employ 80 teachers at an average salary of less than \$900, or 60 teachers at an average salary of nearly \$1,200, or 40 teachers at an average salary of nearly \$1,800? In the first case it can provide twice as many courses or give each member of the staff only half as many hours of teaching as in the last case. Keeping the latter alike in both cases it could offer say 300 courses in the first case, and only 150 in the second.

Suppose the allowance for salaries to be the relatively high one of \$140,000. Shall the institution have a staff of 80 at an average salary of \$1,800, or a staff of 60 at an average salary of \$2,400, or a staff of 40 at an average salary of \$3,600, with consequences as before to the amount of teaching of each member of the staff, or to the variety of the courses offered to the students?

The figures concerning the number of students per instructor strongly support

the criticism that the American colleges and universities are offering too many courses. One three-thousand-dollar man teaching a class of thirty-six students probably means better progress in education than two fifteen-hundred-dollar men each teaching eighteen of the thirty-six. With a given sum to spend and a given number of students, salaries can be increased only by diminishing the number of courses taught by an individual. Either of these alternatives seems preferable to leaving salaries at their present low level, and the former seems feasible without any alarming loss in the adequacy of college curricula to the need of college students.

One may well hesitate to oppose any widening of the scope of an institution's offering in science and letters. But the educational welfare of the students is in the long run more dependent on the quality of the teaching profession than on all other causes. And the increase of courses is not mainly due to greater needs of the student body. On the contrary, it may be irrational.

The professor at the head of a department is usually a specialist zealous for the subject he loves, not interested in and unacquainted with the facts of university economy. He is eager to see his department flourish and to that end adds courses. He dislikes to have a student wish for a certain course in his junior year because it is for economy given only biennially. Often he fails to appreciate that biennial courses may mean a doubled salary allowance per man. He does not feel quite justified in demanding a greater salary for himself, even though he is wasting the university's energy in copying quotations, building fires, and hunting about the town for a cheap tailor. But he feels it his duty to beg for an additional man in the department. He is, perhaps, conscious that better men, and hence higher salaries, must be the means of advancing his or other departments in the long run, but whenever the question is provisionally raised he tends to take the line of least resistance and ask for an addition which will not bring up the question of raising the institution's scale of salaries.

The college president, while more appreciative of the general issue, tends likewise to take the line of least resistance. A thousand dollars five times is easier to ask for than five thousand dollars once. Ever hoping that the financial authorities will follow his broad recommendations to raise the salary schedule, he makes specific recommendations for increasing the number of courses, which in the end make consent to his appeal for a higher schedule impossible. Moreover he, too, is ambitious for the growth of his institution; he loves to see it do every desirable thing that other institutions do; he finds it easier to get more courses than to get better men.

In some cases there has been on the part of heads of departments and heads of colleges nothing less than a passion to increase the variety of courses and the size of the staff. A course is given though only five out of a thousand students take it, and though these five would probably be as much profited by some other course already offered. Yet to give that course is to withhold an increase of

twenty or twenty-five per cent. to some individual's salary. No institution for higher education in this country should, with its present salary schedule, increase its programme of studies except after most careful consideration.

There has also been an insufficient coöperation between departments and between institutions. If all the departments of an institution would agree to ask for no added appropriation for five years on condition that the salary schedule be then raised by a certain amount, the president could recommend a rise in quality as an alternative to a rise in number. In many things institutions might profitably coöperate. There does not seem, for example, any necessity for two universities in the same city to give courses in Syriac. Even where large universities are separated by several hours' journey, they might well consider whether each of them should give courses in Icelandic, in Pali, and in Old Portuguese. A division of labor might well be arranged in such subjects.

Indeed this division of labor could be extended with profit into wider fields than a few recondite courses. If different institutions would coöperate, whereby one would provide an elaborate programme of studies for graduate students in say the physical sciences, another a similar specialization in the mental sciences, and another similarly for the modern languages and literatures, and so on, there might be a decided gain for the welfare of American education as a whole. There would certainly be a gain in the pecuniary rewards of American professors.



## TENURE OF OFFICE AND THE METHOD OF APPOINTMENT IN AMERICAN COLLEGES AND UNIVERSITIES

The security of the teacher's place and his tenure of office in American colleges vary with the character of the college to which he gives his service. The principle that good teachers can be had only in institutions where tenure of place was secure has been a lesson learned by American institutions in comparatively recent times. Even now at state institutions political interference is sufficiently strong sometimes to turn out a president.

In the stronger American colleges and universities tenure of office is to-day secure during faithful performance of duty on the part of the professor. In the better state universities this is also true, and the weaker state institutions will unquestionably follow the example of their stronger neighbors as fast as the political and intellectual standards are raised. The security with which a teacher may hold his place and yet express frankly his honest opinion is perhaps the best criterion of the strength and intellectual fibre of a college or a university and of the civilization of its region. Satisfactory as our progress has been in the better institutions in this matter, we have not yet given to the teacher the measure of security and independence of expression which he has in some European universities. For example, it is not an uncommon thing for a German university professor, standing in the parliament, to criticise the educational policy of the government itself and the appropriations which are made for educational purposes. One can imagine how long a professor in an American state university would hold his place if, as a member of the state legislature, he undertook to criticise the appropriations for his own university, or still more, if he criticised its educational policy.

Appointments of professors are made in the United States by the trustees, as a rule, upon the recommendation of the president. Dismissals come, usually, in the same way. This power in all the better American colleges and universities has, for many years past, been used with great caution. Very rarely have professors been dismissed from good colleges or universities in the past twenty years except upon the ground of evident incompetence or indifference or lack of moral character. There is nothing in the system of American college and university administration which provides for the removal of a professor except in this way. Too often a president must choose between retaining an incompetent and indifferent man, with great injustice to the student body, and an

arbitrary dismissal, an action which is itself a blow at that sense of security of the teaching staff which he desires especially to guard.

In hundreds of the weaker institutions in this country calling themselves colleges, the teacher's tenure of place is as insecure as could well be imagined. Such institutions are, of course, not colleges in any true sense and there is no surer mark of a wholesome, efficient, and scholarly institution than the care with which it chooses its professors and the security, freedom, and dignity which it guarantees to them when once chosen.

The question of the method of appointment of men to places requiring a high degree of skill and a wide range of culture is difficult and no method has probably been devised which insures that the right man may always be chosen. The objection to the choosing of professors by a president, even assuming a consultation with his immediate advisers, is open, among other objections, to the very serious one that the choice is usually narrowed to a limited number of persons when there might be men excellently qualified whose names are never mentioned. In obtaining men for high technical places under the Federal government through the Civil Service, chiefs of division are often surprised at the discovery of men who had been hitherto entirely unknown outside of their own regions, but of a very high order of ability.

The effort made to overcome this difficulty which has been adopted in the choosing of professors in the Italian universities and which has shown excellent results is the following.

When a vacancy occurs in a professorship in an Italian university, the Minister of Public Instruction advertises the vacancy in the journal of the department and bulletins announcing the existence of the vacancy are posted in universities or in other places likely to attract the notice of possible candidates. Any person may apply for the position. His application must be accompanied by certain biographical information, together with a complete statement of his record as a teacher and of his scientific or literary activities. His publications must accompany the application. All applications must be made within a certain date.

In order to decide between the applicants, a jury is selected, the faculty of each university in the country being invited to vote for members of the jury, these being necessarily professors of the same subjects or of a kindred subject to that in which the vacancy occurs. Each faculty votes for five jurors. The Minister of Public Instruction chooses five names from amongst ten having the highest votes. The applications of the candidates are then turned over to this jury. They report to the Minister three names in the order of merit and the appointment is offered to the first; if he refuses, to the second; and if he refuses, to the third.

It should be mentioned that in exceptional cases the faculty of the institution in which the vacancy occurs may request the filling of the vacancy

by a direct call to another professor of the same subject in another university.

In sharp contrast to this method of choice there has been developed in nearly all American institutions a system of inbreeding under which young graduates are appointed assistants, and then advanced to instructorships, and later are promoted to the faculty.



## RETIRING ALLOWANCES IN AMERICAN COLLEGES AND UNIVERSITIES

Before the inauguration of the Carnegie Foundation for the Advancement of Teaching, retiring allowance systems had been inaugurated in a few of the older and stronger American universities, notably at Harvard, Yale, Columbia, and Cornell. The College of the City of New York also gave liberal retiring allowances. A fund had been given to Williams College for this purpose, but a system of retiring allowances had not been put into actual use. The plans in use in these institutions were given in the First Annual Report of the President of the Foundation.

The object of any rightly constructed system of retiring pay for teachers is to strengthen and to dignify the teacher's calling. Desirable as it is to increase salaries, it is evident that the pay of teachers, even in the best colleges, can never be made comparable with those in business life. If, however, with this modest scale of pay no provision is made against the uncertainties of ill health, the weakness of old age, and the needs of those dependent upon the teacher, many men whose scholarly instincts would carry them into the teacher's calling will decline to enter it. No fact has been more evident in the educational experience of colleges and universities in the United States during the past ten or fifteen years than this tendency. Men who came from good homes, of high social position, with strong ambitions, were those least likely to accept the uncertainties of the teacher's life, even when their inclinations led them in this direction.

The institution of a system of retiring allowances in any college goes far to remove the causes which prevent such men from entering the teaching profession. A man will reconcile himself to a modest income, if he may have lifted from his shoulders at the same time the uncertainties which go with it.

In order to fulfil this purpose a retiring-allowance system should carry with it a fair retiring salary at the end of a specified service or at a certain age. It should be able to provide an emergency salary for a longer or shorter period of time in case of physical breakdown, and it should provide a fair proportion of the retiring pay due to a teacher as a pension for his widow.

The system of retiring allowances established by the Carnegie Foundation in the various institutions which have been thus far accepted embraces these three features. Retiring allowances in these institutions are obtained as a right after certain service, not as a matter of courtesy. The following rules indicate

the conditions upon which the retiring allowances are granted, whether on the ground of service or of age:

1. Any person sixty-five years of age, who has had not less than fifteen years of service as a professor and who is at the time a professor in an accepted institution, shall be entitled to an annual retiring allowance computed as follows:

(a) For an active pay of twelve hundred dollars or less, an allowance of one thousand dollars, provided no retiring allowance shall exceed ninety per cent. of the active pay.

(b) For an active pay greater than twelve hundred dollars the retiring allowance shall equal one thousand dollars, increased by fifty dollars for each one hundred dollars of active pay in excess of twelve hundred dollars.

(c) No retiring allowance shall exceed four thousand dollars.

2. Any person who has had a service of twenty-five years as a professor and who is at the same time a professor in an accepted institution, shall be entitled to a retiring allowance computed as follows:

(a) For an active pay of twelve hundred dollars or less, a retiring allowance of eight hundred dollars, provided that no retiring allowance shall exceed eighty per cent. of the active pay.

(b) For an active pay greater than twelve hundred dollars the retiring allowance shall equal eight hundred dollars, increased by forty dollars for each one hundred dollars of active pay in excess of twelve hundred dollars.

(c) For each additional year of service above twenty-five, the retiring allowance shall be increased by one per cent. of the active pay.

(d) No retiring allowance shall exceed four thousand dollars.

3. Any person who has been for ten years the wife of a professor in actual service shall receive during her widowhood one half of the allowance to which her husband would have been entitled.

In case of disability or physical breakdown, each case is treated on its own merits.

Up to May, 1908, the following sixty colleges and universities had been admitted to the benefits of the retiring-allowance system as established by the Carnegie Foundation for the Advancement of Teaching:

Amherst College	Amherst, Massachusetts
Bates College	Lewiston, Maine
Beloit College	Beloit, Wisconsin
Bowdoin College	Brunswick, Maine
Carleton College	Northfield, Minnesota
Case School of Applied Science	Cleveland, Ohio
Central University of Kentucky	Danville, Kentucky
Clark University	Worcester, Massachusetts
Clarkson Memorial School of Technology	Potsdam, New York
Colorado College	Colorado Springs, Colorado
Columbia University	New York City
Cornell University	Ithaca, New York
Dalhousie College and University	Halifax, Nova Scotia
Dartmouth College	Hanover, New Hampshire
Dickinson College	Carlisle, Pennsylvania

Drake University	Des Moines, Iowa
Drury College	Springfield, Missouri
George Washington University	Washington, D. C.
Hamilton College	Clinton, New York
Harvard University	Cambridge, Massachusetts
Hobart College	Geneva, New York
Iowa College	Grinnell, Iowa
Johns Hopkins University	Baltimore, Maryland
Knox College	Galesburg, Illinois
Lawrence University	Appleton, Wisconsin
Lehigh University	South Bethlehem, Pennsylvania
Leland Stanford Junior University	Stanford University, California
McGill University	Montreal, Quebec
Marietta College	Marietta, Ohio
Massachusetts Institute of Technology	Boston, Massachusetts
Middlebury College	Middlebury, Vermont
Mount Holyoke College	South Hadley, Massachusetts
New York University	New York City
Oberlin College	Oberlin, Ohio
Polytechnic Institute of Brooklyn	Brooklyn, New York
Princeton University	Princeton, New Jersey
Radcliffe College	Cambridge, Massachusetts
Randolph-Macon Woman's College	Lynchburg, Virginia
Ripon College	Ripon, Wisconsin
Rose Polytechnic Institute	Terre Haute, Indiana
Smith College	Northampton, Massachusetts
Stevens Institute of Technology	Hoboken, New Jersey
Trinity College	Hartford, Connecticut
Tufts College	Tufts College, Massachusetts
Tulane University of Louisiana	New Orleans, Louisiana
Union University	Schenectady, New York
University of Pennsylvania	Philadelphia, Pennsylvania
University of Rochester	Rochester, New York
University of Vermont	Burlington, Vermont
Vassar College	Poughkeepsie, New York
Wabash College	Crawfordsville, Indiana
Washington and Jefferson College	Washington, Pennsylvania
Washington University	Saint Louis, Missouri
Wellesley College	Wellesley, Massachusetts
Wells College	Aurora, New York
Western Reserve University	Cleveland, Ohio
Western University of Pennsylvania	Pittsburgh, Pennsylvania
Williams College	Williamstown, Massachusetts
Worcester Polytechnic Institute	Worcester, Massachusetts
Yale University	New Haven, Connecticut

From these sixty institutions one hundred and six professors and eighteen widows of professors are to-day being carried upon the retiring-allowance roll at an annual cost of \$185,770. This does not represent the total load which will



eventually come from these institutions upon the retiring-allowance funds because the institutions have not as yet availed themselves of the average number of retirements which they are likely in the future to make. In addition to these professors and widows of professors from the accepted institutions named above, there are also upon the list of the Foundation to-day a number of other names from institutions not upon the accepted list, cases in which the Foundation has dealt directly with the professor, not with the institution.

It is a part of the work of the Carnegie Foundation for the Advancement of Teaching to make the retiring allowance system a part of the American system of education, and it may be fairly inferred from the short history which it has already had that this end is likely to be accomplished. One cannot say at this moment how many institutions it will be possible to include in the list entitled to share in the benefits of the retiring-allowance system, but the number will probably be so large that any college or university which cannot, for one reason or another, be admitted to the system of retiring allowances established by the Carnegie Foundation must, to retain good teachers, establish its own system of retiring allowances upon a similar plan. When once this has been instituted in the colleges and universities of the United States and of Canada as a part of the regular system of education, another step will have been taken in obtaining that greater dignity and security for the teacher's calling which is necessary to attract to its service the best men.

## THE AMOUNT OF TEACHING DEMANDED OF A PROFESSOR

The amount of teaching which institutions of different grades calling themselves colleges or universities exact of a professor, an assistant professor or an instructor, varies so greatly with the standards of the institution and the status of education in its region that it is impossible to give any complete statement concerning it without a full list of the professors of each institution, the number of recitation periods and the amount of laboratory work assigned to them. In general it may be said that the full professor in the stronger universities is called upon to give from six to twelve hours a week of lectures or recitations, counting two hours of laboratory or seminar exercises as equivalent to one hour of lecture or recitation. In the better smaller universities and colleges from twelve to fifteen hours a week of lectures and recitations are counted as the ordinary work of a professor. In a number of institutions as many as twenty-five hours a week of recitations and lectures are demanded. Such excessive demands upon the professor are invariably associated with low standards, the effort for numbers and the widespread attempt in American colleges to give instruction in every conceivable study. The number of teaching hours a week imposed upon the teacher and the amount of administrative detail added to them are directly related not only to the question of good teaching but also to the possibilities of the teacher for study, for growth, and for scholarly productiveness. The present bulletin was compiled from data dealing with the financial status of the teacher in the higher institutions. A statement concerning matters relating to the scholarly status of the professor will be prepared later.

## THE FINANCIAL STATUS OF THE UNIVERSITY PROFESSOR IN GERMANY

### ORGANIZATION OF GERMAN UNIVERSITIES

All the German universities are government institutions. Like the primary schools and the *gymnasias*, the university is part of the educational system of that German state in which it is located.\* The professors are officials of the sovereign, and the major part of the university revenues are derived from the state treasury. The government of the university is, in the last resort, in the hands of the sovereign's Minister of Education, who in the constitutional monarchies is responsible to the Chambers, and in Mecklenburg-Schwerin, to the Grand Duke.

The university is thus under the control of the state Parliament and, according to the laws enacted by it, under the immediate supervision of the Minister of Education. The university budget must be passed each year by the Chambers; the creation of a new chair can only be by parliamentary approval. The appointment of professors rests with the sovereign or his minister, and the scheme of instruction together with the entire educational policy of the university is a matter of state control. As will be seen hereafter, however, this is compatible with a very large measure of professorial freedom and self-government.

As the Minister of Education has charge of the entire school system of the state and is generally also minister of ecclesiastical affairs and several other important branches of government supervision, it is impossible for him to give any minute personal attention to the details of university management. When the annual university budget is before Parliament, or Parliament is discussing any bill affecting the university, he is, of course, in his place as the spokesman of the government, and when university matters must be laid before the sovereign, it is he who is granted an audience by the King or reigning Grand Duke. But while any changes in university policy must be considered by the minister and he is responsible for them, the actual management of university interests generally rests with the permanent officials of the bureau of the ministry which is directly charged with university affairs. The director of that

\* The University of Jena, although within the dominions of the Grand Duke of Saxe-Weimar, is also under the control of the Duke of Saxe-Meiningen, the Duke of Saxe-Altenburg, and the Duke of Saxe-Coburg-Gotha, as Duke of Gotha. The University of Strassburg is in the Reichsland of Alsace-Lorraine, which is analogous in its political status to a territory in the United States.



bureau is therefore often a person of great influence, Director Althoff of the Prussian Ministry having had a power in moulding the Prussian universities and, through their example, the universities of the other German states, which is likely to become historic.

At each university the ministry is represented by a commissioner who has charge of the economic side of the academic administration, and acts as the general advisory agent of the government, conducting the correspondence of the university with the ministry. At the Prussian universities, and at the University of Jena and the University of Strassburg this official is called the curator. At the University of Leipzig he is styled the government plenipotentiary; at the University of Tübingen the chancellor, and at the University of Rostock the vice-chancellor, the title of chancellor at Rostock being borne by the reigning Grand Duke. The Ministry of Instruction of Prussia itself attends to the curatorial business at the University of Berlin, assisted by the rector and the university judge.

The curator is a trained jurist or administrative official who has charge of the erection of buildings, the management of the special scholarship funds, and of all those administrative functions, apart from the direct supervision of the instruction, which in the United States are vested in the university president under the general direction of the board of trustees. The tenure of office of the curator is a fairly permanent one.

The titular executive head of a German university is the rector, elected by the full professors (at the University of Göttingen and at the Bavarian universities by the associate professors also) from among their own number for one year, with the approval of the reigning sovereign. The rector represents the university on occasions of ceremony, presides over the senate, is in control of the university officials, of matriculation, and of all meetings and societies of students, and in general transacts the current business of the institution. The rector is never re-elected, the office being held in rotation by the full professors. At the Universities of Erlangen, Freiberg, Göttingen, Heidelberg, and Jena, the above duties are performed by a Prorector, and at Giessen and Leipzig by the *Rector Magnificus*, these seven universities having as their titular executive a *Rector Magnificentissimus*, who is at Erlangen the King of Bavaria, at Leipzig the King of Saxony, at Freiburg and Heidelberg the Grand Duke of Baden, at Giessen the Grand Duke of Hesse, at Jena the Grand Duke of Saxe-Weimar, and at Göttingen a prince of the royal house of Prussia.

The distinguishing characteristic of the German university is the power of the full professor (*ordentlicher Professor*). In American universities the professor is simply the highest in rank of an ascending series of teachers. Like the instructors and assistants, he is appointed by a board from which all teaching officials are excluded and he holds his office during the pleasure of that board. Unless he occupies an endowed chair, his salary is generally the result of a bar-

gain with the university president. The professor, indeed, sits as of right in the faculty, which determines the number of courses in the curriculum and regulates the activities of the student body, but seldom is an American faculty asked to propose candidates for vacant professorships.

In Germany the professors are practically the university. The professor, to borrow Anglo-Saxon legal terminology, holds his office as a freehold. Buildings are for the professors to lecture in and subordinate teachers are for the relief of the professors from the less important parts of instruction. The professor decides for himself how he will best serve the students; the body of professors settles such general university matters as in their nature cannot be left to individual control. Each university is subject, as are all other institutions in the land, to the control of the sovereign advised by the representatives of his people. But no intermediate non-academic board is interposed between the ultimate authority of the crown and the plenary academic authority of the professors, and the rector, elected by the professors and serving a limited term, has powers analogous to those of the presiding officer of a legislative body; while the powers of an American college president resemble those of the president of a railroad. It must, however, be kept in mind in making any such comparison that the business life of a German university is conducted by the government, through the Minister of Education. The problem of ways and means does not confront the rector and the professors. It is the ever present demand for money which has gone far to transform the American university organization into a business corporation, as differentiated from a teaching body.

A German university ordinarily consists of the four faculties of philosophy, theology, law, and medicine. At the Universities of Bonn, Breslau, Strassburg, and Tübingen there are both a Roman Catholic theological faculty and a Protestant theological faculty.\* The Universities of Heidelberg and Strassburg have a separate faculty of mathematical and natural science and the University of Tübingen, besides this faculty, has also a faculty of political economy. The University of Munich likewise has a faculty of political economy and its faculty of philosophy is in two separate divisions,—classical-historical and mathematical-scientific.† The University of Münster is the one German university having but three faculties, lacking that of medicine.

Each of these faculties is composed of the full professors holding chairs therein. The faculty confers the degrees to which its courses lead, gives (except in Bavaria) to promising young scholars the privilege of acting as *Privat-Dozenten* in the university, proposes candidates for vacant professorships, and in general takes such action on matters pertaining to instruction within the faculty

\* In the Universities of Freiburg, Munich, Münster, and Würzburg the theological faculties are Roman Catholic; elsewhere they are Protestant.

† In the Universities of Freiburg, Münster, Strassburg, and Würzburg political economy is studied under the faculty of law.



as it is inappropriate to leave to the individual professor. The faculty is presided over by the dean, elected each year. The election of the dean must usually be confirmed by the Minister of Instruction. The teaching staff consists of full professors (*ordentliche Professoren*), associate professors (*ausser ordentliche Professoren*), lecturers below professorial rank (*Privat-Dozenten*), with numerous laboratory assistants, and helpers (*Diener*).

At the Universities of Erlangen, Jena, Marburg, and Tübingen, the entire number of full professors, in all the faculties, make up the senate of the university. This is the general legislative body of the institution. In the other universities the senate is composed of the rector and his immediate predecessor, the university judge, the deans of the several faculties, and a certain number of professors elected each year by the entire professorial body. The Universities of Freiburg, Giessen, and Heidelberg, in addition to this smaller representative senate, have also a senate consisting of all the professors, which deals with general disciplinary and administrative matters not referred to the higher body. The Universities of Greifswald, Halle, Kiel, Königsberg, and Rostock call this full gathering of the professors the Consistory, or the General or Academic Council.

When a vacancy occurs in a professorial chair, the general usage is for the faculty to submit candidates to the reigning sovereign, who either approves one of those proposed or by the exercise of his prerogative appoints a scholar of his own selection. The exact details of these nominations and the frequency with which they are disregarded by the sovereigns differ in the several states. In Prussia, although the faculty concerned has the right to submit three names to the King, the King often makes an independent choice. In Bavaria the faculty sends three names to the senate of the university, and in Württemberg four names, the nominees being arranged in order of preference. The university senate considers the nominations and, having altered them if it sees fit, forwards the list through the minister to the King. It is seldom that either the King of Bavaria or the King of Württemberg does not make the appointment from one of these nominees. In Baden the senate of the university can append a report to the three names, arranged in order of preference, which have been nominated by the appropriate faculty, but cannot change the nominations. The grand-ducal Minister of Instruction then makes the selection himself without referring the matter to the Grand Duke, and it is very unusual for another than one of the faculty nominees to be chosen.

When a new chair is created at a university, the final decision whether it is to be a full professorship or an associate one rests with the legislature of the state (or in Mecklenburg-Schwerin with the Grand Duke) at the time of considering the annual budget. Of course, the proposals of the ministry generally receive the assent of the Chambers. A regular professorship is maintained indefinitely, but occasionally personal professorships are created which expire when the occupant of the chair ceases to exercise the functions of a professor.



In Prussia, when a chair is to be filled for the first time, the crown does not ask the faculty in which it is to exist for nominations.

The procedure in the selection of associate professors is generally the same as that which prevails in respect to full professors, except that the Minister of Instruction himself acts upon the nominations of the faculty. The honor of an appointment coming technically from the reigning sovereign is usually reserved for the full professor.

The professor, when appointed, is required to announce one public or free lecture course of one hour each week. He must also announce one private or fee lecture course, which may be from two to six hours weekly. These are the only obligations resting upon him. Other fee lecture courses he can announce at will. The professor has entire freedom in arranging his courses and choosing his own lecture subjects. He naturally confines himself to subjects germane to the chair which he occupies and to whose study he has devoted his life, but there is usually nothing in the university regulations which would prevent him from lecturing on any subject he might desire.

The preliminary step necessary to render a scholar eligible for a professorship is for him to secure from a faculty "habilitation," or admission to the privileges of a privat-docent (*venia legendi*). The privat-docent is not an officer of the government, as are the professors, nor does he receive any salary from the university. His "habilitation" means that he is permitted to give lectures in the university to such students as are willing to pay fees therefor, and that the universities will give to students taking such courses the same credit as if the courses were those of a professor.

In Prussia the "habilitation" of the privat-docent rests entirely with the faculty, the ministry of instruction simply signifying through the curator that the royal government has no objection to the candidate. The privat-docent is not required to lecture unless he sees fit, but his name will be dropped from the announcement of lectures if for two successive semesters he fails to give courses. In Bavaria, the King, through the ministry of instruction, grants to a privat-docent the *venia legendi* and he may be removed at will by the royal command. He must conduct each year one course. In Saxony, Württemberg, and Mecklenburg-Schwerin, the consent of the ministry is necessary for an "habilitation"; in Hesse the rector of the university grants the privilege with the consent of the university senate; and at the University of Jena it is necessary, before a docentship is conferred, to obtain the consent of the Grand Duke of Saxe-Weimar and the reigning Dukes of Saxe-Meiningen, Saxe-Altenburg, and Saxe-Coburg-Gotha. In the Roman Catholic theological faculties an "habilitation" must receive the sanction of the bishop of the diocese.

The requirements for an "habilitation" have been constantly rising in recent years, and the average age at which a scholar acquires this privilege is well above thirty. Although instances of large fees by privat-docents have

existed, the largest practical possibility is from four to five hundred dollars a year. The average income is certainly not much above two hundred dollars. Students have a strong tendency to pay their fees for the lectures of the better known professors, and the situation to-day of the privat-docent who does not possess a private income or is without the backing of wealthy relatives remains the same as when Herr Teufelsdröckh climbed his many flights of stairs at the University of Weissnichtwo. Nor is there any sure hope of a professorship to solace their years of financial barrenness. A chair in the faculty may never come at all; even if it is attained, the period of waiting is beyond calculation. Probably the situation is more difficult than it was when Kant remained a privat-docent at the University of Jena until he was forty-six.

When a man, however, has been commissioned a full professor or an associate professor in a German university, he has attained a financial status which, although it varies widely, is certain to be well within the margin of comfortable living. His income is a total usually composed of (1) a salary attached to his professorship, (2) a personal supplement, (3) a residence or a residence indemnity, (4) all or part of the fees paid by students for his courses, and (5) a part of the more general fees paid by students to the university (faculty fees, examination fees, diploma fees, etc.). The receipts from fees are a very important proportion of the total income of the professor, often far exceeding all the other sources of income combined.

The Carnegie Foundation for the Advancement of Teaching has secured from the governments of the Kings of Prussia, of Saxony, and of Württemberg, from the government of the Grand Duke of Baden, and from the university authorities a statement of the individual incomes in 1906, from each of the above mentioned five sources, of the full professors and the salaried associate professors (*etatsmässig ausser ordentliche Professoren*) in thirteen universities. These thirteen universities are the ten Prussian universities of Berlin, Bonn, Breslau, Göttingen, Greifswald, Halle, Kiel, Königsberg, Marburg, and Münster, the University of Leipzig (Kingdom of Saxony), the University of Tübingen (Kingdom of Württemberg), and the University of Freiburg (Grand Duchy of Baden).

It is only upon such statements of individual incomes that any final account of the financial status of a professor can rest, and the Carnegie Foundation takes this opportunity to express its thanks for the courteous and efficient coöperation of the governments of the German sovereigns and of the German universities which has enabled the Foundation to secure these detailed individual incomes. It is to be regretted that they cannot be published, but it was not thought wise to present the facts concerning individuals even though no names should be stated. Only averages will be given.

To the statement of income directly resulting from the teaching is added in each case on our lists a statement of income from other governmental employments. This secondary income varies in its nature from what is really a

civil-list pension from the sovereign to the professor to a distinct outside salary for outside work, such as the professor might earn by private tutoring or the practice of a profession. These additions to income will not be considered in any of the text or tables that follow unless a special statement to that effect is made.



## GOVERNMENT SALARY SCHEDULES IN THE UNIVERSITIES OF THE DIFFERENT GERMAN STATES

Below will be found the salary schedules for full professors which have been adopted by the different German governments. These salaries are simply the guarantees which the government gives to the professor, and constitute only a small proportion of the total professorial income. Following the account of these government appropriations to the professorial chairs will be a table giving the total academic income of the full professor in German universities, and some discussion thereon. It is with these later figures that the salary of the American professor must be compared.

KINGDOM OF PRUSSIA.—In 1897 the royal government presented to the professors in all the Prussian universities a contract and invited their signatures. According to this contract the professor was to give up to the kingdom one-half of all the fees in excess of 3,000 marks (\$713), except at the University of Berlin, where the surrender was of one-half of the fees above 4,500 marks (\$1,069). This calculation of 3,000 and 4,500 marks was not to include the commission of the "Quaestus" for collecting the fees. The professor was to receive these sums of 3,000 and 4,500 marks net. Professors appointed in 1897 and afterwards were required to sign this contract. In exchange the royal government promised to arrange the salary schedule so that there should be an increase in the professor's salary proportional to his length of service, and guaranteed a minimum income of fees of 800 marks (\$190) from lecture fees, examination fees, and promotion fees, to all of the full professors and the associate professors alike. Many professors whose fees were greatly in excess of 3,000 marks, or 4500 marks at the University of Berlin, declined to accept the government's invitation. According to Professor Biermer, only 361 out of the 738 *etatsmässig* professors in the Prussian universities agreed at once to the proposal. For the others there was thus no regular increase of salary as their period of service lengthened. But many of the professors who at first refused have since given their adhesion to these regulations, and as all of the appointees since 1897 are under its provisions, the plan may now be considered as the normal arrangement in the Prussian universities.

Under the salary schedule thus in force since 1897, the theory is that a full professor begins his service with an annual government salary of \$950; at the University of Berlin \$1,040. Thereafter there is an increase of \$95 every four

years until in twenty years a maximum of \$1,425 is reached; at the University of Berlin a maximum of \$1,711 in twenty-four years. At the discretion of the royal Ministry of Public Instruction the maximum may be raised in special instances to \$1,853—at the University of Berlin to \$2,233. With the approval of the King the respective maxima may go even higher, and at the University of Berlin it is now \$3,563.

Associate professors in the Prussian universities begin usually at an annual salary of \$475—at the University of Berlin \$570. Their salaries are advanced in the same manner by \$95 every four years until the maximum of \$950 is reached in twenty years,—at the University of Berlin \$1,140 in twenty-five years. An associate professor, like the full professor, may likewise receive a special guarantee of fees, or a special salary supplement.

In Prussia each full and salaried associate professor receives an additional sum of money each year as a "residence indemnity," granted quite generally to all the higher civil servants of the King, because of the greater cost of living in the cities. The Universities of Berlin and of Breslau (which has recently been raised to the same class as Berlin) fix this residence indemnity at \$214 annually. At the Universities of Bonn, Halle, Königsberg, and Kiel it is \$157, and at the Universities of Göttingen, Greifswald, and Marburg it is \$128.

**KINGDOM OF BAVARIA.**—About fifteen years ago the Bavarian government adopted a new salary scale for the university professors, whereby their incomes are considerably augmented. A full professor now commences with a government salary of \$1,083 (4,560 M.). At the end of each of three periods of five years \$85 (360 M.) are added to the salary, and thereafter the increment is \$42 (180 M.) at the end of each period of five years. An associate professor usually commences with a government salary of \$756 (3,180 M.), receiving the same increases as the full professor. The salary scale is as follows:

	Full Professor	Associate Professor
To commence.....	\$1,083 (4,560 M.)	\$756 (3,180 M.)
After five years' service.....	1,168 (4,920 M.)	841 (3,540 M.)
After ten years' service.....	1,255 (5,280 M.)	926 (3,900 M.)
After fifteen years' service.....	1,340 (5,640 M.)	1,013 (4,260 M.)
After twenty years' service.....	1,383 (5,820 M.)	1,055 (4,440 M.)
After twenty-five years' service.....	1,426 (6,000 M.)	1,098 (4,620 M.)
After thirty years' service.....	1,470 (6,180 M.)	1,140 (4,800 M.)
After thirty-five years' service.....	1,512 (6,360 M.)	1,183 (4,980 M.)
After forty years' service.....	1,555 (6,540 M.)	1,227 (5,160 M.)
After forty-five years' service.....	1,598 (6,720 M.)	1,264 (5,340 M.)
After fifty years' service.....	1,640 (6,900 M.)	1,312 (5,520 M.)

In addition to the above there is also the residence indemnity—called in Bavaria "salary supplement"—of \$127 (540 M.) for full professors, and \$99



(420 M.) for associate professors. Besides this, there is a further residence indemnity—called “local supplement” in Bavaria—which was added a few years ago because of the increased cost of living. This amounts to \$64 (270 M.) at the Universities of Munich and of Würzburg—in cities of the “first class”—and to \$54 (225 M.) at the University of Erlangen—in a city of the “second class.” In case the fees of a professor amount to more than \$286 (1200 M.) in one year his residence indemnities for that year are cancelled. If the fees do not amount to \$286, so much of the residence indemnities is paid to the professor as is necessary to bring the total up to \$286.

GRAND DUCHY OF HESSE.—A full professor at the University of Giessen begins his service with an annual government salary of \$1,069. This is increased every four years by \$95 until in twenty years the maximum of \$1,544 is attained.

The associate professor is appointed at an annual salary of \$595 (2,500 M.) and after each period of four years' service \$71 (300 M.) is added annually. The maximum is \$950 a year. Very recently the grand-ducal government has authorized a residence indemnity. This is calculated on the basis of eight per centum of the maximum salary, and is therefore \$123 (520 M.) a year for the full professor and \$75 (320 M.) for the associate professor. There is in addition a special fund, amounting at present to \$2,350 a year, at the disposal of the Grand Duke's Minister of the Interior for the purpose of adding supplements to individual salaries.

GRAND DUCHY OF SAXE-WEIMAR.—Until 1902 government salaries at the University of Jena were very meagre, the professors being released from all payments of taxes, however, whether grand-ducal or communal. In 1902 there was a salary reform, a schedule being introduced on the Prussian model, optional as regarded the holders of professorial chairs at that time. About one-fourth of the professors adhered to the old arrangement. Those who accepted the change and all professors appointed since are liable like other subjects to taxes, all of the grand-ducal taxes so collected and one-third of the communal taxes going, however, into the treasury of the university. In return for this the full professor begins his service at an annual government salary of \$950 which is raised every four years until in twenty years he receives \$1,425. The associate professor receives a similar increase in the same periods, his annual salary beginning at \$475 and reaching in twenty years \$950. A part of this increase in the university salary schedules was made possible by the income of the Karl Zeiss Foundation, which is now annually \$7,130. The grand-ducal government of Saxe-Weimar, the ducal governments of Saxe-Meiningen and Saxe-Altenburg, and the Gotha duchy of the reigning Duke of Saxe-Coburg-Gotha also contributed a similar amount. These four governments jointly have royal rights over the university.

GRAND DUCHY OF MECKLENBURG-SCHWERIN.—The full professors at the University of Rostock begin with a government salary of \$998 (4,200 M.), and



receive a \$95 increase at the end of the second and fourth years of service. Thereafter there is an increase of \$95 every four years until at the end of twenty years of service the maximum of \$1,568 is reached.

The associate professor at the University of Rostock commences with a salary of \$570. After three years there is an increase of \$71, and thereafter the like increase at the end of each four years. The maximum government salary of \$856 is attained at the end of fifteen years' service.

At present, the average government salary for full professors at the University of Rostock is \$1,321. By faculties, the averages are as follows: theology, \$1,473; law, \$1,654; medicine, \$1,179; philosophy, \$1,249. The averages in theology and law are much above the similar figures for Prussia. The associate professors in the theological and in the law faculty (there is but one each), and the honorary professor of the medical faculty, receive government salaries of \$641. The average for associate professors in the philosophical faculty is \$615.

KINGDOM OF WÜRTTEMBERG.—At the University of Tübingen the full professor usually commences at \$950 government salary annually, and is advanced at the end of every three years \$119. Four such three-year promotions are allowed. Salary supplements are granted by the royal Minister of Public Education and sometimes these supplements equal two-thirds of the regular government salary. A newly appointed professor may begin his service with one of these large supplements.

The associate professors are appointed at \$570 a year, and every three years receive an increase in salary of \$71. There may be five of these advances. There are now but two associate professors at the University of Tübingen receiving personal salary supplements from the royal government, promotion to the rank of full professor being the usual reward for distinguished service.

The University of Leipzig (Kingdom of Saxony) has no government salary schedule, the salary being arranged in each case between the professor and the royal Minister of Education. The grand-ducal Minister of Instruction makes a similar arrangement with the professors in the Baden Universities of Freiburg and Heidelberg, and at the University of Strassburg each professor's government salary is likewise the result of negotiation with the Minister of Instruction of the Reichsland.

## TOTAL INCOMES OF FULL PROFESSORS

Table XI gives the facts concerning the total professorial incomes of the full professors in the German universities. The incomes range from \$1,000 a year to over \$10,000, with three professors receiving incomes above that figure. Up to \$10,000 the incomes have been segregated, as a convenient division, into two-hundred-dollar groups.

The table shows that a fourth of the incomes are below \$2,100, while, on the other hand, a fourth are over \$3,200, a trifle short of a half being over \$2,500. The most frequent income is one between \$1,600 and \$2,000. The average is \$2,800, but this does not represent the typical income, because, like most averages in financial statistics, it is a result of the compounding of many moderate deviations downwards with fewer, but larger, deviations upward.

One of the most significant facts disclosed by this table is the wide variability of the professorial income. On account of the salary schedules announced by their respective governments for all except four of the German universities, these universities give at a superficial glance an aspect of uniformity and rigidity. The truth is far otherwise. There is a much greater variation in income to suit individual merit than is the case with comparable institutions in the United States. It will be seen from Table XI that in Germany the best paid full professor receives ten times as much as the least paid professor and that the highest income from professorial teaching is more than four times the median income. This is not the case in America.

This adjustment of the financial returns of German professors according to the capability of each individual is due primarily to variations of income within the same institution. Of course, as in the United States, there is a considerable variation among the institutions themselves. Owing to the different fiscal policies of the different governments and the different provisions made by the same government for universities in more important locations, and also on account of the difference in fees due to the size of the student body, there will be found German universities in which the average income of the full professor is from twice to three times the average income in some other university. The wide range of the academic income of professors in the same institution is hardly known in America. In any large German faculty some full professor will generally be found who receives for teaching an income from two to five times as large as some of his colleagues. These larger incomes are due to special allowances from the government, to extra university perquisites, and to fees from the large body of students attracted by a superior reputation. Both the German and the American universities pay for merit. This is understood when a man in either country is

made a full professor. The distinction between the two countries is that the German universities pay an unusual amount for unusual merit. In America, on the contrary, the unusual man fares no better than his colleagues of mediocre ability.

TABLE XI  
INCOMES RECEIVED FOR TEACHING BY FULL PROFESSORS IN GERMAN UNIVERSITIES

Amount of Annual Income	Total Number of Professors Receiving said Income	Percentage of Professors Receiving said Income
\$1,000-1,199	5	.7
1,200-1,399	17	2.5
1,400-1,599	38	5.6
1,600-1,799	64	9.4
1,800-1,999	71	10.4
2,000-2,199	82	12.1
2,200-2,399	51	7.5
2,400-2,599	52	7.6
2,600-2,799	54	7.9
2,800-2,999	53	7.8
3,000-3,199	24	3.5
3,200-3,399	21	3.1
3,400-3,599	17	2.5
3,600-3,799	16	2.4
3,800-3,999	16	2.4
4,000-4,199	11	1.6
4,200-4,399	9	1.3
4,400-4,599	13	1.9
4,600-4,799	9	1.3
4,800-4,999	9	.9
5,000-5,199	5	.5
5,200-5,399	7	1.0
5,400-5,599	2	.3
5,600-5,799	1	.1
5,800-5,999	3	.4
6,000-6,199	6	.9
6,200-6,399	3	.4
6,400-6,599	3	.4
6,600-6,799	..	..
6,800-6,999	2	.3
7,000-7,199	2	.3
7,200-7,399	2	.3
7,400-7,599	1	.1
7,600-7,799	2	.3
7,800-7,999	1	.1
8,000-8,199	1	.1
8,200-8,399	2	.3
8,400-8,599	..	..
8,600-8,799	..	..
8,800-8,999	1	.1
9,000-9,199	..	..
9,200-9,399	2	.3
9,400-9,599	1	.1
9,600-9,799	1	.1
9,800-9,999 *	1	.1

\* Three professors received incomes of over \$10,000.



Table XII gives the facts of Table XI, distributing the income among the four faculties of each university.\* It is evident at a glance that professors of law receive most, and professors of theology least.† Professors of medicine occupy the second place.

TABLE XII  
INCOMES RECEIVED FOR TEACHING BY FULL PROFESSORS IN GERMAN  
UNIVERSITIES. (Classified by the Subjects Taught.)

Scale of Income	PERCENTAGES OF PROFESSORS RECEIVING EACH AMOUNT			
	In Faculties of Theology	In Faculties of Law	In Faculties of Medicine	In Faculties of Philosophy
\$1,000-1,199	1.	...	.8	.8
1,200-1,399	6.3	...	.8	2.7
1,400-1,599	9.4	...	1.7	7.3
1,600-1,799	17.7	...	5.8	10.8
1,800-1,999	15.6	2.1	4.2	13.3
2,000-2,199	20.8	6.3	12.5	11.1
2,200-2,399	4.2	6.3	14.2	6.5
2,400-2,599	4.2	4.2	7.5	9.5
2,600-2,799	4.2	9.5	8.3	8.4
2,800-2,999	6.3	12.6	8.3	6.8
3,000-3,199	2.1	3.2	5.8	3.3
3,200-3,399	...	8.4	4.2	2.2
3,400-3,599	4.2	3.2	2.5	1.9
3,600-3,799	1.	4.3	3.3	1.9
3,800-3,999	1.	2.1	2.5	2.7
4,000-4,199	...	5.3	1.7	1.1
4,200-4,399	...	2.1	2.5	1.1
4,400-4,599	...	2.1	2.5	2.2
4,600-4,799	2.1	2.1	3.3	.3
4,800-4,999	...	2.1	...	1.1
5,000-5,199	...	2.1	2.5	...
5,200-5,399	...	3.2	.8	.8
5,400-5,599	...	...	...	.5
5,600-5,799	...	...	...	.3
5,800-5,999	...	3.2	...	...
6,000-6,199	...	2.1	1.7	.5
6,200-6,399	...	...	...	.8
6,400-6,599	...	1.	...	.5
6,600-6,799	...	...	...	...
6,800-6,999	...	2.1	...	...
7,000-7,199	...	2.1	.8	...
7,200-7,399	...	...	...	.3
7,400-7,599	...	1.	...	...
7,600-7,799	...	1.	...	.3
7,800-7,999	...	1.	...	...
Over 8,000	...	5.	2.5	1.2

\* Faculties of natural science are counted as faculties of philosophy in this table and throughout this bulletin.

† It must be remembered that at eight German universities there are Roman Catholic faculties of theology, which consist largely, if not exclusively, of celibate ecclesiastics.

The essential facts for each group are:

*Professors of Law.*—There is a very great variability of incomes. It takes a range of sixteen hundred dollars, from \$2,200 to \$3,800, to include half of them. A fourth of the incomes are below \$2,700; half are above \$3,300; a fourth are above \$4,900. There are as many incomes above \$7,400 as there are below \$2,200. The largest income is six times the smallest and three times the median income. The average income is about \$4,000.

*Professors of Medicine.*—Half of the incomes are between \$2,000 and \$3,000. Half of them are below \$2,200; somewhat over half are above \$2,600; a fourth are over \$3,400. There are as many incomes above \$4,400 as there are incomes below \$2,000. It is difficult to estimate the typical income. It will be between \$2,000 and \$3,100, and probably between \$2,000 and \$2,600. The highest income is seven times the lowest and about three times the median income. The average of the incomes is \$3,100.

*Professors of the Faculty of Philosophy.*—Half of the incomes are between \$1,600 and \$2,600; three-fourths are between \$1,400 and \$3,000; but there are as many above \$4,000 as there are below \$1,600. A fourth of the incomes are below \$1,850, half are over \$2,300, and a fourth are over \$2,900. An income of \$1,800–\$2,000 is roughly typical. There are twenty-five per cent. of the incomes above \$5,000 compared with twenty-four per cent. for law professors and nine and a half per cent. for professors of medicine. The average of the incomes is \$2,700.

*Professors of Theology.*—Half of the incomes are between \$1,600 and \$2,200, one-fourth are below \$1,700, one-half are over \$2,800, one-fourth are over \$2,400, and there are as many above \$2,800 as are below \$1,600. The typical income is one of \$1,800–\$2,000 and divergences from this type are not so extensive as in the cases of law and medicine. The highest income is four times as great as the lowest, and about two and a half times the median income. The average of the incomes is \$2,100, higher than the median income and still higher than the typical income because of the greater variability in the deviation of higher incomes.

Table XIII gives the variability of incomes of full professors within the same institution. Table XIV shows approximately the variation among institutions. The values of free residences were not included in the averages of this table. If they had been, the alterations would have been inconsiderable. Where the "Average Total Income" is marked (a), it indicates that one or more professors have a free residence instead of a residence indemnity.

TABLE XIII

VARIABILITY OF INCOMES OF FULL PROFESSORS WITHIN THE SAME  
INSTITUTIONS: A SCHEME BASED UPON THE FACTS IN MANY  
UNIVERSITIES

Scale of Incomes.	PERCENTAGE OF FULL PROFESSORS RECEIVING EACH AMOUNT			
	In Faculty of Theology	In Faculty of Law	In Faculty of Medicine	In Faculty of Philosophy
\$1,200 to \$1,399	..	..	..	4
1,400 " 1,599	10	..	..	4
1,600 " 1,799	20	..	..	5
1,800 " 1,999	20	4	..	10
2,000 " 2,199	35	4	6	9
2,200 " 2,399	8	4	9	7
2,400 " 2,599	5	4	12	17
2,600 " 2,799	2	8	6	12
2,800 " 2,999	..	16	9	10
3,000 " 3,199	..	..	12	4
3,200 " 3,399	..	20	15	4
3,400 " 3,599	..	4	9	3
3,600 " 3,799	..	4	..	3
3,800 " 3,999	..	8	3	3
4,000 " 4,199	..	8	..	2
4,200 " 4,399	..	4	..	1
4,400 " 4,599	..	..	6	1
4,600 " 4,799	..	4	3	..
4,800 " 4,999	..	4	..	..
5,000 " 5,199	..	..	6	..
5,200 " 7,500	..	4	5	2

It was not desired that the identity of universities should be disclosed, as that would necessarily arouse speculation concerning the incomes of individual men. Each entry, therefore, in Table XIV refers to one faculty, the same number being used for that faculty in the data for full professors and for associate professors. Under this limitation, a reasonably adequate idea of the differences in the incomes of professors within the same institution may be gathered from the fact that the general tendency is for some one full professor to receive an income bearing a ratio to the income of some other full professor of the same faculty of the same university,

as 7 is to 4 in the case of professors of theology;

" 7 " " 4 " " " " " " law;

" 2 " " 1 " " " " " " " medicine; and

" 3 " " 1 " " " " " " " philosophy.

The variability within each university is due only slightly to the regular increases of salary with length of service. These scheduled advances are far



less effective in causing variability of income than are the special arrangements made to secure the services of specially desirable men. The differing amounts received from student fees are, however, the most important factor in producing large differences in German professorial incomes.

TABLE XIV

VARIATIONS WITH RESPECT TO PROFESSORS' INCOMES FROM TEACHING  
FOR EACH FACULTY OF THIRTEEN GERMAN UNIVERSITIES

FULL PROFESSORS				ASSOCIATE PROFESSORS			
Faculty	Average Total Income	Average Salary plus Residence Indemnity	Average Income from Fees	Faculty	Average Total Income	Average Salary plus Residence Indemnity	Average Income from Fees
THEOLOGY—ROMAN CATHOLIC							
1.	\$2,235	\$1,499	\$736	1.	\$1,232	\$917	\$315
2.	1,868	1,530	338	3.	1,067	807	259
3.	a/1,805	1,417	495	4.	a/1,039	905	172
4.	1,672	1,310	362	2.	978	808	170
5.	1,550	1,533	17	5.	785	654	131
THEOLOGY—PROTESTANT							
6.	\$3,120	\$2,200	\$920	6.	\$1,652	\$1,164	\$488
7.	3,103	2,310	832	16.	1,202	1,012	190
8.	2,830	1,819	1,011	8.	1,200	1,011	188
9.	a/2,369	1,846	537	13.	1,190	1,069	121
10.	1,965	1,505	460	12.	1,151	988	163
11.	1,923	1,585	338	11.	946	746	200
12.	1,869	1,609	260	7.	932	727	205
13.	1,789	1,515	274	14.	917	727	190
14.	1,727	1,308	319	9.	894	761	133
15.	1,613	1,379	234	10.	888	698	190
16.	1,588	1,392	196	15.	664	603	61
LAW							
17.	\$6,745	\$2,628	\$4,117	19.	\$2,875	\$870	\$2,005
18.	6,327	2,189	4,138	18.	2,736	955	1,781
19.	5,064	1,859	3,205	21.	2,156	1,045	1,111
20.	4,010	1,564	2,446	27.	2,133	854	1,279
21.	3,696	1,520	2,176	23.	1,897	698	1,098
22.	3,385	1,842	1,543	26.	1,789	917	873
23.	3,322	1,574	1,748	29.	1,756	917	839
24.	2,978	1,387	1,591	24.	1,689	983	706
25.	2,944	1,407	1,537	25.	1,584	698	886
26.	2,738	1,589	1,149	28.	1,539	679	860
27.	2,656	1,344	1,312	20.	1,473	863	610
28.	2,430	1,321	1,109	22.	1,067	689	378
29.	2,386	1,487	899	17.	1,000	542	458

TABLE XIV—*Continued*VARIATIONS WITH RESPECT TO PROFESSORS' INCOMES FROM TEACHING  
FOR EACH FACULTY OF THIRTEEN GERMAN UNIVERSITIES.

FULL PROFESSORS				ASSOCIATE PROFESSORS			
Faculty	Average Total Income	Average Salary plus Residence Indemnity	Average Income from Fees	Faculty	Average Total Income	Average Salary plus Residence Indemnity	Average Income from Fees
MEDICINE							
30.	\$4,750	\$1,714	\$3,066	30.	\$1,653	\$941	\$712
31.	a/3,623	1,880	1,754	32.	1,630	843	787
32.	3,525	1,585	1,940	39.	1,590	746	844
33.	a/3,077	1,611	1,498	34.	1,262	798	464
34.	a/2,916	1,339	1,597	31.	1,092	771	325
35.	2,717	1,482	1,235	37.	1,068	763	305
36.	2,549	1,724	825	40.	1,049	761	288
37.	a/2,388	1,549	908	36.	1,017	974	43
38.	a/2,291	1,279	1,049	33.	1,014	754	260
39.	a/2,211	1,256	955	41.	878	643	235
40.	a/2,024	1,235	922	38.	834	719	115
41.	a/1,964	1,277	710	35.	673	573	100
PHILOSOPHY							
42.	a/\$3,561	\$2,164	\$1,397	42.	\$1,504	\$1,011	\$493
43.	3,546	2,033	1,521	48.	1,445	875	570
44.	a/2,660	1,698	979	49.	a/1,333	806	527
45.	a/2,643	1,685	963	44.	a/1,304	1,030	292
46.	2,616	1,484	1,132	47.	1,304	904	400
47.	a/2,592	1,606	995	51.	1,174	808	366
48.	2,348	1,449	899	45.	1,163	820	343
49.	a/2,229	1,390	849	54.	1,145	927	218
50.	a/2,132	1,454	682	53.	1,139	861	278
51.	2,005	1,508	497	50.	1,129	953	183
52.	1,877	1,363	474	46.	1,116	817	299
53.	a/1,876	1,476	410	43.	982	675	254
54.	a/1,757	1,358	439	52.	978	829	149

The associate (*ausser ordentliche*) professors in German universities are of two kinds, the *etatmässig ausser ordentliche* professors and the *nicht-etatsmässig ausser ordentliche* professors. The former is the class meant when associate professors are spoken of without any qualifying expression. The latter class is about one-fourth of the entire number, varying in different universities from ten to eighty per cent. They enjoy the title of associate professor, but the title is not accompanied by an appointment from the government, nor do these associate professors draw the government salary appropriate to their rank. They are either teachers who have practically the financial status of *privat-docents* but have been given the higher title on account of

merit or long service, or they are men who for various reasons are exempt from the responsibilities and the rewards which normally attach to the professorial office. The following statements will deal solely with the *etatsmässig* associate professors.

Table XV arranges the *etatsmässig ausser ordentliche* professors according to their incomes in separate groups of \$200 of income. In the thirteen universities which have been carefully studied, the number of these professors is about three-sevenths of the number of the full professors. Four-tenths of the associate professors are in receipt of professorial incomes of from \$1,000 to \$1,400; one-fourth of them receive less than \$900; half of them receive over \$1,200; and one-fourth receive more than \$1,700. The incomes below \$600 and those above \$2,400 number about the same. The typical income is one from \$1,000 to \$1,200. Ninety-six per cent. of the incomes lie between \$900 and \$2,400, and eighty-seven per cent. between \$600 and \$2,000, and although this indicates a very large variability of income, it is not as great a variability as was found in the case of full professors. The average income of an associate professor is a trifle over \$1,300.

TABLE XV

INCOMES RECEIVED FOR TEACHING BY ASSOCIATE PROFESSORS (*ETATS-MÄSSIG*) IN GERMAN UNIVERSITIES

Scale of Incomes	PERCENTAGES OF ASSOCIATE PROFESSORS RECEIVING EACH AMOUNT				
	In all Faculties Combined	In Faculty of Theology	In Faculty of Law	In Faculty of Medicine	In Faculty of Philosophy
\$200 to \$399	.3	...	...	...	.6
400 " 599	3.3	...	...	4.1	4.3
600 " 799	10.7	13.5	...	17.8	8.6
800 " 999	17.0	29.7	3.6	15.1	17.3
1,000 " 1,199	19.3	18.9	10.7	23.3	19.1
1,200 " 1,399	18.0	18.0	10.7	11.0	22.2
1,400 " 1,599	9.7	10.8	7.1	6.9	10.5
1,600 " 1,799	6.7	...	25.0	6.9	4.9
1,800 " 1,999	5.7	2.7	14.3	1.4	6.8
2,000 " 2,199	3.0	...	7.1	4.1	2.5
2,200 " 2,399	2.7	5.4	3.6	2.7	1.9
2,400 " 2,599	.7	...	...	2.7	...
2,600 " 2,799	...	...	...	...	...
2,800 " 2,999	1.3	...	10.7	1.4	...
3,000 " 3,199	.3	...	...	...	.6
3,200 " 3,399	...	...	...	...	...
3,400 " 3,599	.7	...	3.6	1.4	...
Over 3,600	.9	...	3.6	1.4	.6



According to the faculties the remuneration of the associate professor is close to half that of the full professor, except in the faculty of medicine. In that faculty it is about four-ninths of the income of the full professor. For the different faculties the facts are:

*Associate Professors of Law.*—Nearly half of the incomes are between \$1,400 and \$2,000, one-fourth are below \$1,400, half are above \$1,750, and one-fourth are above \$2,100. The average income is \$1,900.

*Associate Professors of Medicine.*—One-half of the incomes are between \$600 and \$1,200. One-fourth of these are below \$850, a half are above \$1,100, and a fourth are above \$1,525. The average income is \$1,300.

*Associate Professors of the Faculty of Philosophy.*—Half of the incomes are between \$900 and \$1,400, a fourth are below \$925, a half are above \$1,200, and a fourth are above \$1,450. The average income is \$1,250, but one of from \$1,000 to \$1,200 is typical.

*Associate Professors of Theology.*—Half of the incomes are between \$800 and \$1,200. One-fourth of them are below \$875, one-half are above \$1,100, and a fourth are above \$1,325. The average income is \$1,250.

The financial status of the privat-docent has already been explained. In the faculty of philosophy the position has no value except as a means to a professorship. In this faculty the privat-docents number about two-fifths of the two grades of professors. The docent in medicine usually receives a return for his services in the professional recognition which his university connection secures for him; the docent in law may receive a similar professional advantage. In medicine the docents number about four-fifths of the number of the two grades of professors; in theology and law docents are rare, numbering less than one-fifth of the combined number of full and associate professors.

The teachers in the Technische Hochschulen at Charlottenburg, Hannover, Aachen, and Dantzig do work comparable to that of the teachers in the Schools of Applied Science or Engineering in American universities. The incomes, here as elsewhere due to regular salary, salary supplement, residence indemnity, and fees, are as shown in Table XVI. For comparison with university teachers of Theology, Law, Medicine, or the Arts and Sciences, the table of full and associate professorships combined—Table XVIII—should be used.

Over nine-tenths of the incomes from teaching in these four Technische Hochschulen are between \$1,200 and \$3,200, half of them between \$1,600 and \$2,600, a fourth are below \$1,650, half are above \$2,075, and a fourth are above \$2,600. There is no clearly typical income, incomes of \$1,200 to \$2,800 being nearly equally frequent. The average income is approximately \$2,150.

TABLE XVI

RELATIVE FREQUENCIES OF DIFFERENT INCOMES FROM TEACHING RECEIVED BY PROFESSORS IN THE TECHNISCHE HOCHSCHULEN AT CHARLOTTENBURG, HANNOVER, AACHEN, AND DANTZIG

Scale of Incomes	Percentages of Professors	Scale of Incomes	Percentages of Professors
Below \$1,000*	1.3	\$2,400-\$2,599	6.6
\$1,000-1,199	2.0	2,600- 2,799	10.0
1,200-1,399	9.3	2,800- 2,999	7.3
1,400-1,599	10.6	3,000- 3,199	4.0
1,600-1,799	10.0	3,200- 3,399	...
1,800-1,999	12.6	3,400- 3,599	2.0
2,000-2,199	12.6	Above 3,600*	2.6
2,200-2,399	9.3		

The Technische Hochschulen have a peculiar class of university teachers, the remunerated docents, who number nearly half as many as the salaried professors. Their incomes are given in Table XVII. Nine-tenths of them are between \$150 and \$1,100, half of them are between \$200 and \$600, a fourth are below \$250, half are above \$440, and a fourth are above \$630.

TABLE XVII

RELATIVE FREQUENCIES OF DIFFERENT INCOMES FROM TEACHING RECEIVED BY THE REMUNERATED DOCENTS OF THE TECHNISCHE HOCHSCHULEN AT CHARLOTTENBURG, HANNOVER, AACHEN, AND DANTZIG

Scale of Incomes	Percentages of Individuals	Scale of Incomes	Percentages of Individuals
\$100-\$199	21.4	\$700-\$799	4.3
200- 299	12.9	800- 899	2.9
300- 399	10.0	900- 999	2.9
400- 499	14.3	1,000-1,099	5.7
500- 599	14.3	Over 1,100†	4.3
600- 699	7.1		

Full professors in the Technische Hochschule of Dresden (Saxony) are paid salaries ranging from \$856 to \$2,613; associate professors, from \$286 to \$856. The professors have one-half of the student fees, in addition to their salaries. In some instances individual professors receive annually from fees as much as \$2,500. As elsewhere, it is not the highest salary that necessarily accompanies the highest total of fees.

\* The incomes below \$1,000 and above \$3,600 are stated thus indefinitely in order to make identification of individuals' incomes impossible.

† The detailed amounts are withheld to insure the impossibility of identification.

The professors in the Technische Hochschule of Munich are paid on the same scale as the professors in the universities of Bavaria. In effect, the same is true of the other governments and their Technische Hochschulen, not only with regard to salaries but also in regard to pensions.

In order to have a more convenient summary for reference and a picture of the total financial prospect of a university teacher, in Table XVIII the full and salaried associate professors are combined in one group, and the professors in the Technische Hochschulen are included under the heading "Engineering."

TABLE XVIII  
INCOMES RECEIVED FROM TEACHING BY FULL AND ASSOCIATE PROFESSORS  
COMBINED IN GERMAN UNIVERSITIES

Scale of Incomes	PERCENTAGES OF PROFESSORS RECEIVING EACH AMOUNT.				
	In Faculty of Theology	In Faculty of Law	In Faculty of Medicine	In Faculty of Philosophy	In Faculty of Engineering
\$ 200 to \$ 799	4	..	9	4	1
800 " 1,399	25	6	22	20	11
1,400 " 1,999	34	12	14	29	33
2,000 " 2,599	22	16	16	20	29
2,600 " 3,199	9	22	16	13	21
3,200 " 3,799	4	14	8	4	2
3,800 " 4,399	1	7	5	3	1
4,400 " 4,999	2	5	4	3	..
5,000 " 5,599	..	4	2	1	1
5,600 " 6,199	..	4	1	1	..
6,200 " 6,799	..	1	..	1	..
6,800 " 7,399	..	3	1	..	..
7,400 " 7,999	..	2	..	..	..
8,000 " 8,599	..	1	1	..	..
Over 8,600	..	3	1	1	..

The incomes given in Tables XI, XII, XV, and XVIII could properly be increased by adding the salaries which some professors receive from sinecure offices in the government, or offices which, while not altogether sinecure, are compensated out of proportion to the services rendered. An appointment to these offices is practically, in whole or in part, like an allowance on the sovereign's civil list. To differentiate such appointments from the government offices in which the salary is the ordinary recompense for services performed is, however, a task too delicate and subjective to be made except by one familiar with the facts of each individual case. Table XIX, therefore, gives the incomes of professors from government offices outside of the university, without regard to the nature of the offices or the amount of labor that they involve. As the data



at hand are from Prussian universities only, the table refers to the Kingdom of Prussia alone.

TABLE XIX  
INCOMES OF UNIVERSITY PROFESSORS IN PRUSSIA FROM EXTRA-  
UNIVERSITY ROYAL OFFICES

Scale of Extra- University Salaries	PERCENTAGES OF PROFESSORS RECEIVING THE DIFFERENT AMOUNTS							
	FULL PROFESSORS				ASSOCIATE PROFESSORS			
	Theology	Law	Medicine	Philosophy	Theology	Law	Medicine	Philosophy
\$0 to \$99	9.0	..	..	2.0	3.3	..	..	.8
100 " 199	4.0	..	2.0	2.3	..	4.0	1.5	1.7
200 " 299	9.0	4.0	..	8.3	6.7	4.0	..	2.5
300 " 399	5.3	..	1.0	.7	3.3	8.0	1.5	2.5
400 " 499	2.7	..	2.0	1.0	3.3	4.0	3.0	..
500 " 599	..	..	2.0	1.7	..	..	3.0	3.3
600 " 799	1.3	1.0	2.0	.7	3.3	4.0	1.5	.8
800 " 999	1.3	..	..	1.3	..	..	3.0	..
1,000 " 1,199	..	..	2.0	1.0	..	..	..	1.7
1,200 " 1,399	..	..	3.0	1.0	..	..	..	..
1,400 " 1,599	..	..	3.0	.7	..	..	..	.8
1,600 " 1,799	1.3	..	2.0	.3	..	..	1.5	1.7
1,800 " 1,999	..	..	1.0	..	..	..	..	..
2,000 " 2,499	..	..	..	..	..	..	..	..
2,500 " 2,999	..	..	1.0	.3	..	..	1.8	.8
3,000 " 3,499	..	..	..	..	..	..	..	..
Over 3,500	1.3	..	..	..	..	..	..	..

Table XIX, while an interesting addendum to Tables XI, XII, XV, and XVIII, does not alter the value of those tables for purposes of comparison with the remuneration for university teaching outside of Germany. With the exception of the membership in the Royal Academy of Sciences, the total effect of outside offices held by professors in the Prussian government is not different from the effect of similar outside positions obtained through a university connection by university professors in other countries. In Prussia, while these extra-university salaries tend at times, especially in the case of professors of theology, to compensate for a low income, their general influence is to increase incomes that are already high. It should also be remembered that in Germany, as elsewhere, the fiscal authorities can occasionally make a position financially more attractive to an individual in other ways than by direct increase of salary.

The professorial incomes which have been given must, of course, be interpreted in terms of the cost of living. To compare this cost of living with the

similar cost for an American university professor is difficult. The Carnegie Foundation has endeavored to obtain the cost of provisions, servant-wages, and house rent in the German university cities, in order to be able to institute a comparison with a similar investigation conducted in America. The cost of food-stuffs in Germany, especially since the new Imperial Tariff Act, is higher than in the United States; the wages of servants, on the other hand, are very much lower. House rent is lower than in America, although not nearly as much lower as servant hire. For the latter item there is, as in the United States, a great difference between different localities. Marburg and Berlin can no more be considered together in respect to the necessary scale of professorial expenditure than can Charlottesville and New York. Furthermore, in Germany no more than in America, is it possible to estimate what a professor and a professor's family need to spend. Individuals and families vary in their necessities and standards of living as much in university circles as in other circumstances of life. Probably, however, it will be a fair approximation to the facts if we estimate the cost of living in the localities of the United States in which universities most comparable to those of Germany are situated, taking all of these variables into account, as one and a half times greater than in Germany.

Compared with other classes in the community, the German university professor is still better off than his American colleague. He ranks financially with very important legal and administrative officers; and no principal of a normal school or head of a city system of schools approaches in income from educational work the income received by a considerable percentage of university professors. The German governments pay teachers in the elementary schools well, and the teachers in the secondary schools especially well, but the full professor in a university receives over four times as much as the former and over twice as much as the latter class. The financial status of the university professor in Germany is thus seen to be at the top in the educational world and on a level with all except the nobility and the more successful of business men. It is unnecessary to revert to the dissimilar position of the university professor in America. And human nature being what it is, the higher relative prosperity of the German professor probably seems as important to him as his higher absolute prosperity.

## TENURE OF OFFICE AND PROVISIONS FOR RETIREMENT

Removal from a professorship except for gross and flagrant violation of its responsibilities is by custom impossible in German universities. The general custom is to permit a professor to continue his work and receive his income therefrom as long as he likes. The number of professors of advanced years who retain their regular positions is very high, as shown in Table XXI. It must be borne in mind that the work actually required of a professor makes very slight demands upon bodily strength. If in old age a professor chooses to give up the work of teaching, the general tendency is to release him from the work but to leave his income unchanged except for the loss of fees. Sometimes an allowance is a little less than this; sometimes it is made even more by a recompense in lieu of fees. If, though not advanced in years, he becomes unable to fulfil the very small requirement of lecturing, financial provision may be made for him by special arrangement or by formal regulations. The conditions in each of the universities are stated in Table XX.

The widow and minor children of the professor are in general provided for by the government or by some government-aided organization. In the eleven universities where the allowance to the professor's family is irrespective of the salary at the time of death, its annual amount is approximately \$400 for the widow of a full professor; \$90 for each child until the age of twenty-one while the mother lives, or \$130 in case of her death. The annual allowance to the family of an associate professor is approximately \$300 for the widow and, except at Leipzig, the same \$90 and \$130 for a child.

In the universities where the allowance is dependent on the salary of the professor there is more variability. The central tendency is to an annual allowance to the widow of one-fourth of the husband's last salary and to each child of one-fifth of the widow's allowance while she lives and three-tenths of it in case of her death. The details for the various German governments follow.



TABLE XX

## TABULAR STATEMENT OF RETIRING ALLOWANCE SYSTEMS IN GERMAN UNIVERSITIES

UNIVERSITY	GENERAL ARRANGEMENTS FOR RETIREMENT	INITIATIVE FOR RETIREMENT	REGULATIONS FOR INCOME OF RETIRED PROFESSORS	AMOUNTS OF INCOME ACTUALLY RECEIVED BY RETIRED PROFESSORS
Universities in Kingdom of Prussia. (Berlin, Bonn, Breslau, Göttingen, Greifswald, Halle, Kiel, Königsburg, Marburg, Münster.)	No fixed system of pensions. Release from obligation of lecturing. The professor may lecture if he chooses.	Only on request of the professor, which may be granted or refused by fiscal authorities.	Full salary plus residence indemnity plus possible grant in lieu of fees.	Full professors: At Berlin, \$2,831 (average). Elsewhere, \$1,712 (average). Associate professors: At Berlin, \$1,014 (average). Elsewhere, \$957 (average).
Universities in Kingdom of Bavaria. (Erlangen, Munich, and Würzburg.)	The general custom is to release from the obligation of lecturing, leaving the professor his full salary, but there is also a legal provision for formal pensioning.	In general as in Prussia. For disability, at the option of the fiscal authorities. After the age of 70 or after 40 years of service at the option of the professor.	In general as in Prussia. 80% of all salary (but not residence indemnity) if during first 10 years of service; 90% thereafter; 100% if the professor is 70 years or over. Only after forty years of service is the royal government required to give a pension.	Full professors from \$368 to \$1,565 according to length of service in case of disability. Associate professors from \$605 to \$1,227 according to length of service.
Universities in Grand Duchy of Baden. (Freiburg and Heidelberg.)	Legal provision for pensioning.	For disability after ten years of service at the option of the fiscal authorities. After the age of 65 at the option of the professor or of the authorities. The latter option is not exercised.	30% of the last salary (including residence indemnity) plus 1% for each additional year of service; but not to exceed \$1,782 or 75% of the salary, except by grant of the state.	
University of Giessen. (Grand Duchy of Hesse.)	Legal provision for pensioning.	For disability after five years of service. The professor may retain his position regardless of age.	40% of last salary plus 2% for each year of service over five through the tenth, plus 1% for each year from the eleventh through the thirtieth, plus 1% for each year from the thirty-first through the fortieth. Full salary after fifty years of service.	
University of Jena. (Grand Duchy of Saxe-Weimar.)	No fixed system of pensions. Release from the obligation of lecturing.		Full salary.	

University of Leipzig. (Kingdom of Saxony.)	No fixed system, though the income of a retired professor is called a pension.	Only on request of the professor. The fiscal authorities can only suggest retirement informally.	Individual arrangements are made. Approximately the full salary, but sometimes less and sometimes more.
University of Rostock. (Grand Duchy of Mecklenburg-Schwerin.)	No fixed system of pensions. Release from the obligation of lecturing.		Full salary.
University of Strassburg. (Alsace-Lorraine.)	No fixed system of pensions. Release from the obligation of lecturing.		Full salary.
*University of Tübingen. (Kingdom of Württemberg.)	Legal provision for pensioning.	For disability incurred in the discharge of official duty at any age. For disability after 9 years of service. For old age after 65. Retirement is by the royal government on its own initiative or that of the professor.	40% of the last salary (including any personal supplement) after 9 years, plus 1½% for each additional year of service if the salary is \$570 or over, or 1¼% if the salary is under \$570, with limits of 85% and 92¼% respectively; full professors receive also ⅓ of the salary in lieu of the fees lost.
Technische Hochschulen of Prussia.	Legal provision for pensioning. The law has lately been changed, but the nature of the change has not been made public.		
* Technische Hochschule of Saxony.	Legal provision for pensioning.	As for royal officers in general.	30% of the last salary after 10 years of service increasing to 80% after 39 years of service.
Technische Hochschule of Bavaria.	The same provision as for professors in the universities of Bavaria.		

\*The Minister of Ecclesiastical Affairs and Public Education of the King of Württemberg hopes for the passage of a law raising the maximum pension from \$1,425 to \$1,900.

## PENSIONS OF WIDOWS AND ORPHANS OF UNIVERSITY PROFESSORS

**KINGDOM OF PRUSSIA.**—Formerly foundations of mutual funds existed in the Prussian universities for the payment of pensions to widows or orphans of deceased professors. Since 1889 the members of the mutual funds have been released from the payment of contributions—except in instances where additional mutuals are maintained—and the royal government allots an annual subvention to the several funds in order to make it possible to pay a fixed pension to widows and orphans. The amount of the royal subvention was \$61,500 in 1907. The pension is at present \$393 annually for the widow of a full professor, and \$309 yearly for the widow of an associate professor, with the following additional provision: If the widow was more than fifteen years younger than the deceased, a twentieth of the pension is deducted for each year of the difference in ages from the fifteenth to the twenty-fifth—that is, from one-twentieth up to one-half—and for every year of the marriage in excess of five years one-twentieth of the total ordinarily due is added until the full amount is again restored. The pension for an orphan who has lost both parents is \$171 annually; for every other orphan \$115; for the eldest orphan whose mother is still living, \$115,—for other children in the same family, each \$71 per annum. The pension of the orphan ceases with the twenty-first completed year or with marriage.

There are also other special funds existing at some Prussian universities, having as their sole object the assistance of widows and orphans of deceased professors. The amounts paid are relatively small.

**KINGDOM OF BAVARIA.**—The widow of a professor in a Bavarian university receives one-fifth of the last salary of the deceased, in case he had been in active service at the time of his death, or one-fifth of his pension, if the professor had retired on a pension. The widow's pension may be increased by one-half if she suffers certain bodily disability, such as total blindness.

Orphans whose mother is still living receive each one-fifth of the amount of the widow's pension. If a child has lost both parents, it receives three-tenths of what the mother's pension would have been if living. Pension of the orphan continues usually to the age of twenty-one, unless maintenance has previously been provided for a daughter through her marriage. The widow's pension is likewise cancelled if she marries.

The state pension for widows and orphans is much less in Bavaria than in Prussia. However, there is in Bavaria the Universal State Service Maintenance



Association, which the professors join largely. It provides not inconsiderable pensions for widows and orphans. The society has three classes of members—full professors belonging to the first class, and associate professors to the second class. Those in the first class of royal officials pay \$22 (90 M.) annually, and those in the second class \$13 per year as dues, if members. The widow of a man in the first class is paid \$143 (600 M.) yearly, as long as she remains single. Each orphan whose mother is living receives one-fifth, and each full orphan three-tenths of the mother's pension, until twenty-one years of age, or until married; in the second class, the widow receives \$95 (400 M.) yearly, and the orphans the same ratio as before. The royal government pays subventions to this fund. Also, whether he eventually becomes a member or not, each professor must pay ten per cent. of his salary for the first year to this society, and likewise when promoted he pays ten per cent. of the increase. He is allowed six months after securing his appointment to decide whether he will become a member of the society or not, and there is a small fine for those who join late. A "daughter-fund" to extend beyond the time when the daughter arrives at twenty-one is managed by the society. Each member pays \$6.50 yearly to this department. It provides a pension—at present of \$58 (240 M.) a year—to daughters of deceased professors. The pension begins at the age of twenty-one, and is paid so long as the daughter remains unmarried or does not enter a convent.

There is a special "widow-fund" at the Bavarian University of Erlangen, participated in only by full professors. Each one who desires to become a member must pay five per cent. of his first year's salary income and five per cent. of every increase. Every full professor, also, whether a member of the fund-society or not, must pay an annual assessment of \$4.50 to this fund. As the fund now stands, the widow is paid about \$202 per year. If the mother is not living, a similar amount is divided among the children until they are of legal age—that is, until the end of the twenty-first year.

KINGDOM OF SAXONY.—In the University of Leipzig there is a "widow-fund" in connection with the university, having its own endowment. It is also aided by the royal government. The pension for the widow of a full professor is \$428 annually, and for that of an associate professor \$238, or one-fifth of the last salary of the deceased, in case the latter amount is the larger. The pension for full orphans is three-tenths and for "half-orphans" one-fifth, for each, of the pension to be reckoned for the widow. There is also a fund in the University of Leipzig, maintained by mutual payments, that yields a pension of \$71 annually to the widow of a full professor, and \$48 yearly to that of an associate professor.

GRAND DUCHY OF BADEN.—In the universities of Baden a special fund is maintained under grand-ducal supervision and with a yearly grand-ducal subvention of above \$154,000, for the purpose of providing pensions for the widows and orphans of all grand-ducal officials. Each professor pays three per cent.

of his salary into this fund. The widow receives thirty per cent. of the last salary of the deceased, and each "half-orphan" has a pension income of two-tenths of the widow's pension. Each full orphan receives four-tenths of the widow's pension; but two receive together seven-tenths, and if there are three or more full orphans they receive each three-tenths of the widow's pension.

**KINGDOM OF WÜRTTEMBERG.**—The fund maintained by the royal government yields a pension to the widow of a professor at the University of Tübingen of one-third of the salary of the professor at the time of his death, or one-third of the amount of the pension he would have been entitled to if he had been pensioned. The "half-orphan" has one-fifth, and the full orphan one-fourth of the pension of the widow, or that which she would have received had she been living. Steps were taken during the summer of 1907 to raise the pension of the widow to fifty per cent. instead of thirty-three and one-third per cent. Only in exceptional instances is the pension paid to orphans over eighteen years of age.

**GRAND DUCHY OF HESSE.**—The pension which a widow of a professor at the University of Giessen receives from the grand-ducal government is regularly thirty per cent. of the pension received by the deceased, provided he was pensioned at the time of his death—or of the pension possible to him at that time. However, the widow's pension must not fall below \$52, and in the case of salaries under \$594 must amount to at least one-fifth of the salary, and in the event that the salary was above \$594 the pension must amount to at least \$119.

The pension of the orphan or orphans is as follows:

1. In the case of children whose mother still lives, one-fifth of the amount received by the widow;

2. In the case of full orphans—for the eldest child, two-thirds of the pension the mother would have received had she been living; if there are two orphans living, each receives one-half of the widow's pension; if three, each receives one-third of the same.

However, the pension of the widow and of the orphans, taken together or separately, must not exceed the amount of the pension which the professor would have drawn had he been living. Moreover, the pension of the orphan ceases with arrival at the age of eighteen.

**GRAND DUCHY OF MECKLENBURG-SCHWERIN.**—The widow of a professor at the University of Rostock receives one-fourth of the salary of her husband. The highest pension possible for the widow of a full professor is therefore \$392, and of an associate professor \$214. The children whose mother still lives receive one-fifth of the pension of the widow, whereas full orphans receive two-fifths of this amount each, but all of the orphans together may not receive more than the total pension of the mother, or that which she would have received had she been alive.

**ALSACE-LORRAINE.**—The widow of a professor at the University of Strass-

burg receives from the treasury of the Reichsland one-fifth of the amount last drawn as salary by the deceased—with exception of the salary supplements. However, this sum may not be less than \$228 or more than \$381 in amount. Each orphan receives \$75 annually from the same source.

GRAND DUCHY OF SAXE-WEIMAR.—There is a special Academic Widows' and Orphans' Benevolent Association at the University of Jena, to which all professors and other university officers belong. The annual assessment for either full or associate professors is \$26, deducted from the salary in four quarterly installments. The widow's pension is \$214; that of the minor orphans whose mother is living is \$48 for the eldest, \$36 annually for the second in age, and \$24 yearly for each other child in the family. The total pension of widow and orphans may not exceed \$345. The pension for full orphans is: \$143 annually for the eldest, for the second in age \$36, and for each of the others \$24. The total pension of the full orphans may not exceed \$240. The children separated from the mother through divorce proceedings are treated as full orphans. Likewise, if the mother remarries, the children are considered as full orphans. Orphans may take a new age classification after the death of a brother or sister.

The relatives of a deceased professor of the University of Jena are also entitled to a burial-fund, equivalent to the yearly assessment of the society.

#### TECHNISCHE HOCHSCHULEN

In the Technische Hochschulen of Prussia, a widow's pension is forty per cent. of what her husband's pension would have been in the event that he had been pensioned on the day of his death. The pension of a widow must be at least \$56, and in the case of a widow of an official of the fourth class—to which the *etatsmässig* professors belong—may not exceed \$475.

Each orphan whose mother is still living receives a sum equal to one-fifth of the amount allotted to the mother, and each full orphan receives one-third of the amount which the mother would have been paid had she been living. The pension of widow or of orphans, taken together or separately, may not exceed the amount of the pension to which the deceased was entitled, or would have been entitled to if pensioned on the day of his death.



TABLE XXI  
DATA CONCERNING AGES OF FULL PROFESSORS IN GERMAN UNIVERSITIES.

UNIVERSITY	Total Number of Full Professors	FULL PROFESSORS STILL IN SERVICE AT THE AGE OF SIXTY-FIVE OR OLDER.				Total Number 65 or above 65
		Age 65-69	Age 70-74	Age 75-79	Age 80 or more	
PRUSSIA:						
Berlin.....	88	9	8	6	2(80)	25
Bonn.....	65	7	1	2	1(82)	11
Breslau.....	65	8	2	1	..	11
Göttingen.....	65	6	7	1	..	14
Greifswald.....	45	3	1	1	..	5
Halle.....	54	6	4	..	..	10
Kiel.....	44	5	2	1	..	8
Königsberg.....	50	4	2	..	..	6
Marburg.....	49	3	2	..	1(84)	6
Münster.....	39	..	1	1	1(82)	3
BAVARIA:						
Munich.....	77	5	4	2	*1(85)	12
Würzburg.....	43	5	..	..	..	5
Erlangen.....	42	1	2	..	..	3
SAXONY:						
Leipzig.....	68	7	5	2	1(82)	15
WÜRTTEMBERG:						
Tübingen.....	53	6	3	..	..	0
BADEN:						
Freiburg.....	48	2	5	..	..	7
Heidelberg.....	47	3	4	..	1(80)	8
ALSACE-LORRAINE:						
Strassburg.....	52	5	3	..	..	8
HESSE:						
Giessen.....	47	1	2	..	..	3
SAXE-WEIMAR:						
Jena.....	37	5	1	1	..	7
MECKLENBURG-						
SCHWERIN:						
Rostock.....	35	1	2	..	..	3
Totals.....	1,113	92	61	18	8	179

\* Since deceased.

TABLE XXII  
DATA CONCERNING AGES OF ASSOCIATE PROFESSORS IN GERMAN  
UNIVERSITIES

UNIVERSITY	Total Number of Associate and Honorary Professors	ASSOCIATE PROFESSORS STILL IN SERVICE AT THE AGE OF SIXTY-FIVE OR OLDER				Total Number 65 or above 65
		Age 65-69	Age 70-74	Age 75-80	Age 80 or more	
PRUSSIA:						
Berlin.....	125	10	9	2	1(83)	22
Bonn.....	29	..	1	..	..	1
Breslau.....	27	2	..	1	..	3
Göttingen.....	29	5	..	1	1(83)	7
Greifswald.....	18	..	1	..	..	1
Halle.....	38	3	2	1	1(81)	7
Kiel.....	24	..	..	..	..	..
Königsberg.....	25	1	..	3	..	4
Marburg.....	23	1	..	..	..	1
Münster.....	14	..	..	..	..	..
BAVARIA:						
Munich.....	61	1	1	1	..	3
Würzburg.....	22	1	..	..	..	1
Erlangen.....	11	1	..	..	..	1
SAXONY:						
Leipzig.....	83	..	1	1	..	2
WÜRTTEMBERG:						
Tübingen.....	25	1	..	..	..	1
BADEN:						
Freiburg.....	43	2	1	..	1(80)	4
Heidelberg.....	71	5	1	3	..	9
ALSACE-LORRAINE:						
Strassburg.....	22	2	..	..	..	2
HESSE:						
Giessen.....	8	..	..	..	..	0
SAXE-WEIMAR:						
Jena.....	55	3	..	1	..	4
MECKLENBURG- SCHWERIN:						
Rostock.....	12	..	1	..	..	1
Totals.....	765	38	18	14	4	74

TABLE XXIII

AVERAGE AGE OF FULL PROFESSORS IN PRUSSIAN UNIVERSITIES. (1907.)

UNIVERSITY	Number of Full Professors	AVERAGE AGE IN GIVEN FACULTY				
		In Faculty of Theology	In Faculty of Law	In Faculty of Medicine	In Faculty of Philosophy	Average of Faculties
Berlin.....	88	61.5	60.5	61.5	58.5	59.6
Bonn.....	65	54.5	53.1	59.4	54.0	54.8
Breslau.....	65	54.0	53.4	54.3	51.3	52.5
Göttingen.....	65	56.0	57.9	53.0	56.5	56.1
Greifswald.....	45	48.2	48.0	50.2	52.5	51.0
Halle.....	54	59.6	50.8	59.3	54.5	55.8
Kiel.....	44	55.0	57.2	57.4	51.2	53.7
Königsberg.....	50	56.0	41.8	53.5	51.0	51.1
Marburg.....	49	54.0	47.6	52.3	55.4	53.3
Münster.....	39	52.0	42.2	....	52.3	50.2
Average .....	Total 564	55.1	52.1	56.0	54.3	54.4

TABLE XXIV

AVERAGE AGE OF FULL PROFESSORS IN GERMAN UNIVERSITIES, EXCLUSIVE OF PRUSSIA. (1907.)

UNIVERSITY	Number of Full Professors	AVERAGE AGE IN GIVEN FACULTY						
		Theology	Law	Medicine	Philosophy	Political Science	Natural Science	Average of Faculties
BAVARIA:								
Munich.....	77	50.3	61.1	57.6	54.5	55.1	....	55.5
Würzburg.....	43	46.1	49.7	48.7	49.4	....	....	48.9
Erlangen.....	42	53.7	46.2	50.8	52.1	....	....	51.3
SAXONY:								
Leipzig.....	68	61.2	59.5	62.3	55.3	....	....	57.6
WÜRTTEMBERG:								
Tübingen.....	53	56.2	47.0	51.9	48.7	52.7	55.0	51.8
BADEN								
Freiburg.....	48	55.0	49.7	54.8	53.0	....	....	52.9
Heidelberg.....	47	53.0	58.3	52.9	50.8	....	61.3	54.2
ALSACE-LORRAINE:								
Strassburg.....	52	47.2	54.5	57.2	54.7	....	....	53.3
HESSE:								
Giessen.....	47	48.8	42.6	47.0	51.0	....	....	48.9
SAXE-WEIMAR:								
Jena.....	37	55.5	55.4	53.8	55.1	....	....	54.9
MECKLENBURG-SCHWERIN:								
Rostock.....	35	61.8	49.5	52.5	48.0	....	....	51.7



TABLE XXV

AVERAGE AGE OF ASSOCIATE PROFESSORS AND HONORARY FULL PROFESSORS IN THE FACULTIES OF THE PRUSSIAN UNIVERSITIES. (1907.)

UNIVERSITY	Number of Professors Included	AVERAGE AGE IN GIVEN FACULTY				
		In Faculty of Theology	In Faculty of Law	In Faculty of Medicine	In Faculty of Philosophy	Average of Faculties
Berlin.....	125	57.0	54.0	56.0	53.0	54.6
Bonn.....	29	42.8	....	55.9	45.0	48.0
Breslau.....	27	43.6	54.7	52.3	46.5	48.5
Göttingen.....	29	40.8	64.0	54.8	52.2	52.3
Greifswald.....	18	*33.0	56.0	50.3	43.5	44.8
Halle.....	38	51.0	51.0	52.0	52.0	51.7
Kiel .....	24	44.0	40.5	46.6	48.5	46.6
Königsberg.....	25	41.5	51.0	52.0	51.5	50.8
Marburg.....	23	43.3	42.0	43.2	46.0	45.1
Münster.....	14	60.0	41.6	....	43.0	45.0
Average.....	Total 352	47.3	51.7	53.6	50.2	50.8

\* One case only.

TABLE XXVI

AVERAGE AGE OF ASSOCIATE PROFESSORS AND HONORARY FULL PROFESSORS IN THE FACULTIES OF GERMAN UNIVERSITIES, EXCLUSIVE OF PRUSSIA. (1907.)

UNIVERSITY	Number of Associate and Full Honorary Professors	AVERAGE AGE IN GIVEN FACULTY						
		Theology	Law	Medicine	Philosophy	Political Science	Natural Science	Average for University
BAVARIA:								
Munich.....	61	....	50.4	48.3	44.0	57.0	....	46.5
Würzburg.....	22	34.0	....	51.8	45.3	....	....	48.5
Erlangen.....	11	....	....	41.8	46.0	....	....	44.0
Average for Bavaria.....		34.0	50.4	46.3	44.5	57.0	....	47.1
SAXONY:								
Leipzig.....	83	54.8	49.7	48.0	47.0	....	....	47.8
WÜRTTEMBERG:								
Tübingen.....	25	33.0	34.0	50.8	44.2	....	42.1	43.1
BADEN:								
Freiburg.....	43	42.7	32.5	45.3	47.3	....	....	45.3
Heidelberg.....	71	54.0	51.8	44.1	53.0	....	46.8	48.3
ALSACE-LORRAINE:								
Strassburg.....	22	39.6	52.0	49.5	57.5	....	....	49.6
HESSE:								
Giessen.....	8	....	45.0	39.0	43.8	....	....	42.8
SAXE-WEIMAR:								
Jena.....	55	32.5	43.0	42.0	46.3	....	....	40.9
MECKLENBURG-SCHWERIN:								
Rostock.....	12	31.0	33.0	51.0	43.0	....	....	43.1

# INDEX

AACHEN, TECHNISCHE HOCHSCHULE OF, 82, 83  
 Academy of Sciences of Berlin, Royal, 85  
 Accepted Institutions of the Carnegie Foundation, 59  
 ADELPHI COLLEGE, 26, 38-41  
 Adjunct professor, 1, 29, 30, 43  
 ALABAMA POLYTECHNIC INSTITUTE, 16, 17, 50  
 ALBION COLLEGE, 42, 43, 47  
 ALLEGHENY COLLEGE, 40, 41  
 Alsace-Lorraine, Reichsland of, 63, 89, 92  
 AMHERST COLLEGE, 2, 14, 15, 26, 50, 59  
 Annapolis, United States Naval Academy at, 24  
 ARIZONA, UNIVERSITY OF, 40, 41, 47  
 ARMOUR INSTITUTE OF TECHNOLOGY, 12, 13, 26, 31, 50  
 Arts, Bachelor of, in Oratory, 46  
 Arts, Faculties of Liberal, 33, 51  
 ASBURY COLLEGE OF LIBERAL ARTS, 46  
 Assistant, 1, 11, 13, 15, 17, 19, 31, 38, 41, 43, 45, 47, 48, 51, 57  
 Assistant professor, 1, 11, 13, 15, 17, 19, 20, 29-31, 41, 43, 45, 47, 62, 64  
 Associate professor, 1, 10, 12, 14, 16, 18, 20, 29, 30, 37, 40, 42-45, 47, 64, 66-68, 70-73, 78-85, 87, 91-97  
 Baden, Grand Duchy of, 66, 68, 88, 91  
 Baden, Grand Duke of, 64, 66, 68  
 BALDWIN UNIVERSITY, 8  
 BARNARD COLLEGE, 38  
 BATES COLLEGE, 42, 43, 47, 59  
 Bavaria, Technische Hochschulen of, 89  
 Bavarian Universities, 64, 83, 90  
 BAYLOR UNIVERSITY, 2  
 BELOIT COLLEGE, 40, 41, 59  
 BERLIN, UNIVERSITY OF, 64, 68, 70, 71, 88, 94-97  
 BEXLEY HALL, 42  
 BIBLE AND MISSIONARY TRAINING SCHOOL, 46  
 BONN, UNIVERSITY OF, 65, 68, 71, 88, 94-97  
 BOSTON UNIVERSITY, 14, 15, 26, 50  
 BOWDOIN COLLEGE, 38, 40, 41, 46, 59  
 BRESLAU, UNIVERSITY OF, 65, 68, 71, 88, 94-97  
 BROWN UNIVERSITY, 2, 12, 13, 26, 33, 38, 50  
 BRYN MAWR COLLEGE, 2, 14, 15, 26, 31, 49  
 Budget, College Salary, 4-7, 10, 12, 14, 16, 18, 24, 36, 38, 40, 42, 44, 47, 51  
 BUENA VISTA COLLEGE, 8  
 Burial Fund, 93  
 Business Schools, 46  
 CALIFORNIA, UNIVERSITY OF, 5, 10, 11, 26, 33, 50  
 Canadian Colleges and Universities, 1  
 CARLETON COLLEGE, 39, 42, 43, 59  
 CASE SCHOOL OF APPLIED SCIENCE, 16, 17, 26, 50, 59  
 CENTRAL UNIVERSITY OF KENTUCKY, 39, 59  
 CENTRE COLLEGE, 39, 42, 43  
 CHARLES CITY COLLEGE, 8  
 CHARLOTTENBURG, TECHNISCHE HOCHSCHULE OF, 82, 83  
 CHICAGO, UNIVERSITY OF, 2, 5, 10, 11, 21, 26, 27, 30, 33, 51  
 Children of deceased professors, pensions for, 87-93  
 CINCINNATI, UNIVERSITY OF, 12, 13, 26, 50  
 CLARK UNIVERSITY, Worcester, Massachusetts, 4, 16, 17, 26, 49, 51, 59  
 CLARKSON MEMORIAL SCHOOL OF TECHNOLOGY, 39, 44, 45, 59  
 CLEMSON AGRICULTURAL COLLEGE, 14, 15, 50  
 COE COLLEGE, 8, 38, 39, 44, 45, 47  
 COLBY COLLEGE, 42, 43  
 COLGATE UNIVERSITY, 4, 16, 17, 21, 50

COLLEGE OF WILLIAM AND MARY, 42, 43, 47  
 COLORADO COLLEGE, 40, 41, 59  
 COLORADO SCHOOL OF MINES, 26, 38, 42, 43, 47  
 COLORADO, UNIVERSITY OF, 14, 15, 50  
 COLUMBIA UNIVERSITY, New York City, 2, 5, 10, 11, 21, 23, 26, 27, 30, 33, 37, 38, 47, 50, 58, 59  
 Commercial Science, Bachelor of, 46  
 Consistory, University, 66  
 CORNELL COLLEGE, Mount Vernon, Iowa, 8, 38-41, 47  
 CORNELL UNIVERSITY, Ithaca, New York, 5, 10, 11, 26, 33, 35, 50, 59  
 Cost of living, vi., 36, 47, 72, 85, 86  
 Council, University, 66  
 Cumberland Presbyterian Church, 8  
 CUMBERLAND UNIVERSITY, 8  
 Curator, University, 64, 67  
 DALHOUSIE UNIVERSITY, 34, 38-41, 46, 47, 59  
 DANTZIG, TECHNISCHE HOCHSCHULE OF, 82, 83  
 DARTMOUTH COLLEGE, 12, 13, 26, 27, 31, 38, 50, 59  
 Dean of a faculty, 9, 27, 56  
 Dental schools, 48  
 DE PAUW UNIVERSITY, 4, 38-41, 46, 47  
 DICKINSON COLLEGE, 40, 41, 46, 47, 59  
 Diener, 66  
 DRAKE UNIVERSITY, 16, 17, 21, 51, 60  
 DRESDEN, TECHNISCHE HOCHSCHULE OF, 83  
 DRURY COLLEGE, 26, 39, 42, 43, 47, 60  
 EARLHAM COLLEGE, 42, 43, 47  
 ELMIRA COLLEGE, 39, 44, 45  
 Engineering, School of, 21, 46, 82, 84  
 English Universities, ix  
 EPWORTH UNIVERSITY, 2  
 ERLANGEN, UNIVERSITY OF, 64, 66, 72, 88, 91, 94-97  
 European universities, 55  
 Examination, entrance to college only by, 37  
 Fees, university, 68, 70-72, 74, 79, 80, 82, 83, 87-89  
 Fellowships, 31  
 FRANKLIN COLLEGE, Indiana, 38, 39, 44, 45  
 FREIBERG, UNIVERSITY OF, 64-66, 68, 73, 88, 94-97  
 GENERAL THEOLOGICAL SEMINARY, 21, 23, 26, 27, 29, 34  
 GEORGETOWN UNIVERSITY, Washington, D. C., 4  
 GEORGE WASHINGTON UNIVERSITY, 14, 15, 21, 26, 49, 60  
 GEORGIA SCHOOL OF TECHNOLOGY, 17, 18, 30, 50  
 German Empire, salary of professors in, vii., 25  
 German professors, age of, 32  
 GERMAN WALLACE COLLEGE, 8  
 GIESSEN, UNIVERSITY OF, 64, 66, 72, 87, 92, 94-97  
 GÖTTINGEN, UNIVERSITY OF, 64, 68, 71, 87, 94-97  
 Government salary schedules in German universities, 70-74, 78-80, 82-84, 88, 89  
 Graduate degree, 31  
 Graduate student, 2, 46, 54  
 GREENVILLE AND TUSCULUM COLLEGE, 8  
 GREIFSWALD, UNIVERSITY OF, 66, 68, 71, 88, 94-97  
 Gymnasia, 63, 86  
 HALLE, UNIVERSITY OF, 66, 68, 71, 88, 94-97  
 HAMILTON COLLEGE, 31, 42, 43, 47, 60  
 HAMLINE UNIVERSITY, 2  
 HANNOVER, TECHNISCHE HOCHSCHULE OF, 82, 83



HARVARD UNIVERSITY, 3, 5, 10, 11, 18, 21, 26, 30, 33, 35, 37, 38, 47, 49, 58, 60  
 HAYFORD COLLEGE, 8, 18, 19, 26, 28, 30, 34, 37, 49  
 Heads of departments, 18, 23, 27, 53  
 HEIDELBERG, UNIVERSITY OF, 64-66, 73, 88, 94-97  
 High Schools, v. 6, 9  
 HOBART COLLEGE, 42, 43, 60  
 HOWARD COLLEGE, Birmingham, Alabama, 2  
 HOWARD UNIVERSITY, Washington, D. C., 16, 17, 50  
 IDAHO, UNIVERSITY OF, 17, 18, 49  
 ILLINOIS, UNIVERSITY OF, 5, 10, 11, 26, 33, 50  
 Income of colleges, 3, 4, 10, 12, 14, 16, 18, 33-35, 40, 42, 44  
 INDIANA UNIVERSITY, 12, 13  
 Instructor, 1, 6, 11, 13, 15, 17, 19, 20, 22, 31, 35-38, 41, 43, 45, 47, 48, 52, 57, 62, 64  
 IOWA COLLEGE, 40, 41, 60  
 IOWA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS, 12, 13, 50  
 IOWA, STATE UNIVERSITY OF, 8, 12, 13, 27, 50  
 IOWA WESLEYAN UNIVERSITY, 8  
 Italian universities, 56  
 JAMES MILLIKIN UNIVERSITY, 18, 19, 21, 49  
 JENA, UNIVERSITY OF, 63, 64, 66-68, 72, 88, 93-97  
 JOHNS HOPKINS UNIVERSITY, 2, 5, 10, 11, 26, 49, 51, 60  
 Judge, University, 64, 66  
 KANSAS CITY UNIVERSITY, 2  
 KANSAS STATE AGRICULTURAL COLLEGE, 12, 13, 50  
 KANSAS, UNIVERSITY OF, 12, 13, 50  
 Karl Zeiss Foundation, 72  
 KENTUCKY, STATE UNIVERSITY OF, 18, 19, 50  
 KENYON COLLEGE, 42, 43, 46  
 KIEL, UNIVERSITY OF, 66, 68, 71, 88, 94-97  
 KÖNIGSBERG, UNIVERSITY OF, 66, 68, 71, 87, 94  
 KNOX COLLEGE, 44, 45, 60  
 LAFAYETTE COLLEGE, 8, 27, 38-41, 47  
 LAKE FOREST COLLEGE, 40, 41, 46  
 Law, Faculty of, 65, 73, 76-79, 81, 82, 84, 85  
 Law schools, 22, 33, 46, 51  
 LAWRENCE UNIVERSITY, 39-41, 46, 60  
 Lawyers, average income of, 23-25  
 Lawyers, maximum income of, 25  
 Lecturers, 1, 66  
 LEHIGH UNIVERSITY, 14, 15, 26, 50, 60  
 LEIPZIG, UNIVERSITY OF, 64, 68, 73, 87, 89, 91, 94-97  
 LELAND STANFORD JUNIOR UNIVERSITY, 2, 5, 10, 11, 21, 26, 30, 33, 50, 60  
 LENOX COLLEGE, 8  
 MCGILL UNIVERSITY, 5, 10, 11, 26, 39, 49, 60  
 MAINE, UNIVERSITY OF, 16, 17, 30, 50  
 MARBURG, UNIVERSITY OF, 66, 68, 71, 88, 94-97  
 MARIETTA COLLEGE, 39, 42, 43, 60  
 MARYVILLE COLLEGE, 2, 8  
 MASSACHUSETTS AGRICULTURAL COLLEGE, 27  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 5, 10, 11, 26, 48  
 Maximum salary of professors, vi., 24-28  
 Medical schools, 22, 33, 38, 46, 48, 51  
 Medicine, Faculty of, 65, 73, 76-78, 80-82, 84, 85  
 Methodist Episcopal Church, 8  
 MIAMI UNIVERSITY, 16, 17  
 MICHIGAN STATE AGRICULTURAL COLLEGE, 14, 15, 49  
 MICHIGAN, UNIVERSITY OF, 5, 10, 11, 26, 50  
 MIDDLEBURY COLLEGE, 44, 45, 47, 50  
 Minister of Education, 63, 65-67  
 MINNESOTA, UNIVERSITY OF, 3, 5, 10, 11, 26, 51  
 MISSISSIPPI, UNIVERSITY OF, 16, 17, 30, 50  
 MISSOURI, UNIVERSITY OF, 3, 5, 10, 11, 26, 50  
 MONMOUTH COLLEGE, 38, 39, 44, 45  
 MONTANA STATE COLLEGE OF AGRICULTURE AND MECHANIC ARTS, 18, 19, 50  
 MONTANA, UNIVERSITY OF, 42, 43, 47  
 MORNINGSIDE COLLEGE, 8  
 MOUNT HOLYOKE COLLEGE, 14, 15, 21, 49, 52, 60  
 MOUNT SAINT MARY'S COLLEGE, 39, 42, 43  
 MOUNT UNION COLLEGE, 8  
 MUNICH, TECHNISCHE HOCHSCHULE OF, 83  
 MUNICH, UNIVERSITY OF, 65, 72, 88, 94-97

MÜNSTER, UNIVERSITY OF, 65, 68, 88, 94-97  
 Music, Bachelor of, 46

NASHVILLE, UNIVERSITY OF, 27  
 NEBRASKA, UNIVERSITY OF, 3, 5, 10, 11, 39, 51  
 NEW YORK, COLLEGE OF THE CITY OF, 4, 12, 13, 21, 23, 26, 30, 31, 58  
 NEW YORK UNIVERSITY, 4, 5, 10, 11, 26, 51, 60  
 NORTH CAROLINA COLLEGE OF AGRICULTURE AND MECHANIC ARTS, 18, 19, 27  
 NORTH CAROLINA, UNIVERSITY OF, 14, 15, 50  
 NORTH DAKOTA AGRICULTURAL COLLEGE, 18, 19, 51  
 NORTH DAKOTA, STATE UNIVERSITY AND SCHOOL OF MINES OF, 16, 17, 49  
 NORTHWESTERN UNIVERSITY, Evanston, Illinois, 5, 10, 11, 26, 50  
 OBERLIN COLLEGE, 12, 13, 51, 60  
 OHIO NORTHERN UNIVERSITY, 2, 8  
 OHIO STATE UNIVERSITY, 3, 5, 10, 11, 34, 50  
 OHIO UNIVERSITY, ATHENS, 16, 17, 30, 51  
 OHIO WESLEYAN UNIVERSITY, 8, 16, 17, 30, 50  
 OKLAHOMA, STATE UNIVERSITY OF, 14, 15, 49  
 OLIVET COLLEGE, 39, 42, 43  
 OREGON, UNIVERSITY OF, 3, 18, 19, 50

Painting, Bachelor of, 46  
 PARSONS COLLEGE, 8  
 PENNSYLVANIA COLLEGE FOR WOMEN, 39, 44, 45  
 PENNSYLVANIA STATE COLLEGE, 14, 15, 27, 50  
 PENNSYLVANIA, UNIVERSITY OF, 3, 5, 10, 11, 21, 26, 50, 60  
 Pensions to professors' widows and orphans, 90-93  
 Philosophy, Faculty of, 65, 73, 76-78, 80-82, 84, 85  
 PHYSICIANS AND SURGEONS, COLLEGE OF, 38  
 POLYTECHNIC INSTITUTE OF BROOKLYN, 23, 26, 38-41, 47, 60  
 POMONA COLLEGE, 40, 41  
 Preceptor, 1, 18, 29  
 President of a college, 1, 24, 25, 28, 53-56, 64, 65  
 Priests as teachers, 4, 76  
 PRINCETON UNIVERSITY, 1, 2, 4, 5, 10, 11, 26, 33, 49, 52, 60  
 Privat-Dozent, vii., 65, 66, 68, 80, 82  
 Professional schools, 2, 21, 27, 46, 48  
 Professor, v.-viii., 1, 3-6, 9, 10, 12, 14, 16, 18, 20, 21, 23, 24, 28, 29, 31, 32, 34, 36-40, 42, 44, 48, 51, 54-58, 61-66, 68-97  
 Professor, age of (average), 22, 32, 33, 47  
 Professor, outside work by, 22  
 Professors, choice of, 66  
 Professors, dismissal of, 55  
 Professors, maximum salary of, 24-28  
 Prorector, University, 64  
 Prussia, Technische Hochschulen of, 82, 93  
 Prussian Universities, 64, 68, 70, 84, 90  
 Publicity, advantage of, in college administration, x.  
 PURDUE UNIVERSITY, 12, 13, 50

QUEEN'S UNIVERSITY, 16, 17, 51  
*Quaestims*, 70

RADCLIFFE COLLEGE, 4, 18, 19, 38, 60  
 RANDOLPH-MACON WOMAN'S COLLEGE, 4, 42, 43, 47, 60  
 Ratios of college teachers to students, 11, 13, 15, 17, 19, 37, 41, 43, 45, 48-52  
 Rector, University, 64-67  
 Remunerated docents, 63  
 RENSSELAER POLYTECHNIC INSTITUTE, 16, 17, 26, 31  
 Residence indemnity, 68, 71, 72, 77, 79, 80, 82, 88  
 Retiring allowances, vi., viii., 58-61, 84, 88-89  
 RIPON COLLEGE, 2, 27, 38, 44, 45, 60  
 ROCHESTER THEOLOGICAL SEMINARY, 27  
 ROCHESTER, UNIVERSITY OF, 18, 19, 50, 60  
 ROSE POLYTECHNIC INSTITUTE, 38, 39, 42, 43, 47, 60  
 ROSTOCK, UNIVERSITY OF, 64, 66, 72, 73, 89, 92, 94-97  
 RUTGERS COLLEGE, 4, 18, 19, 26, 30, 49

SAINT LOUIS UNIVERSITY, 27  
 Saxony, Technische Hochschulen of, 89  
 Science, Bachelor of, 2  
 Science, faculty of, 65, 76  
 Scientific schools, 21, 33

SCIO COLLEGE, 8  
 Senate, University, 64, 66, 67  
 SIMMONS COLLEGE, 16, 17, 27, 50  
 SIMPSON COLLEGE, 8  
 SMITH COLLEGE, 12, 13, 27, 50, 60  
 SOUTH CAROLINA, UNIVERSITY OF, 27, 39, 40, 41, 46  
 SOUTH DAKOTA, UNIVERSITY OF, 16, 17, 21, 50  
 STEVENS INSTITUTE OF TECHNOLOGY, 16, 17, 23, 26, 50, 60  
 STRASSBURG, UNIVERSITY OF, 63-65, 73, 89, 93-97  
 Students, number of, 2, 11, 13, 15, 17, 19, 41, 43, 45, 48, 49  
 Supplement, salary in German Universities, 71-74, 82, 88, 93  
 SWARTHMORE COLLEGE, 18, 19, 27, 50  
 SYRACUSE UNIVERSITY, 4, 12, 13, 30, 34, 51  
  
 Teachers, number of, 2  
 Teaching, amount of, 28  
 TEMPLE COLLEGE, 2, 18, 19, 21, 49  
 TENNESSEE, UNIVERSITY OF, 14, 15, 50  
 Tenure of office, 55, 87  
 TEXAS, AGRICULTURAL AND MECHANICAL COLLEGE OF, 14, 15  
 TEXAS, UNIVERSITY OF, 12, 13, 26, 50  
 Theological schools, 33, 46  
 Theology, Faculty of, 65, 73, 76-78, 81, 82, 84, 85  
 TORONTO, UNIVERSITY OF, 3-5, 10, 11, 21, 26, 30, 34  
 TRINITY COLLEGE, Durham, N. C., 40, 41, 46, 47  
 TRINITY COLLEGE, Hartford, Conn., 2, 27, 38-41, 47, 60  
 Trustees of a college, Board of, 1, 55, 64  
 TUBINGEN, UNIVERSITY OF, 64-66, 68, 73, 89, 92, 94-97  
 TUFTS COLLEGE, 14, 15, 50, 60  
 TULANE UNIVERSITY OF LOUISIANA, 12, 13, 26, 28, 33, 50, 60  
  
 UNION COLLEGE, College View, Nebraska, 2  
 UNION UNIVERSITY, Schenectady, New York, 16, 17, 27, 49, 60  
 UNIVERSITY OF NOTRE DAME DU LAC, 4  
 UNIVERSITY OF SOUTHERN CALIFORNIA, 2  
 UNIVERSITY OF THE SOUTH, 27, 39-41, 46, 47

Upper Iowa Conference, 8  
 UPPER IOWA UNIVERSITY, 8  
 UTAH, AGRICULTURAL COLLEGE OF, 4, 12, 13, 50  
 UTAH, UNIVERSITY OF, 14, 16, 50  
  
 VALPARAISO UNIVERSITY, 2  
 VANDERBILT UNIVERSITY, 8, 14, 15, 27, 33, 49  
 VASSAR COLLEGE, 2, 4, 12, 13, 27, 38, 50, 60  
 VERMONT, UNIVERSITY OF, 16, 17, 50, 60  
 Vice-Chancellor, University, 64  
 VICTORIA UNIVERSITY, 34  
 VIRGINIA POLYTECHNIC INSTITUTE, 16, 17, 50  
 VIRGINIA, UNIVERSITY OF, 5, 12, 13, 27, 33, 35, 49  
  
 WABASH COLLEGE, 42, 43, 60  
 WASHINGTON AND JEFFERSON COLLEGE, 25, 26, 40, 41, 47, 60  
 WASHINGTON AND LEE UNIVERSITY, 5, 18, 19, 50  
 WASHINGTON COLLEGE, Tennessee, 8  
 WASHINGTON, STATE COLLEGE OF, Pullman, 14, 15, 21, 50  
 WASHINGTON UNIVERSITY, St. Louis, Mo., 14, 15, 26, 49, 60  
 WASHINGTON, UNIVERSITY OF, Seattle, 12, 13, 50  
 WELLESLEY COLLEGE, 12, 13, 38, 50, 60  
 WELLS COLLEGE, 42, 43, 47, 60  
 WESLEYAN UNIVERSITY, 2, 16, 17, 26, 28, 50  
 WESTERN RESERVE UNIVERSITY, 12, 13, 27, 50, 60  
 WESTERN UNIVERSITY OF PENNSYLVANIA, 14, 15, 27, 49, 60  
 WEST VIRGINIA UNIVERSITY, 14, 15, 49  
 Widows of professors, 59, 60, 61, 87, 90-93  
 WILLIAMS COLLEGE, 2, 14, 15, 27, 49, 58, 60  
 WILSON FEMALE COLLEGE, 39, 42, 43  
 WISCONSIN, UNIVERSITY OF, 5, 10, 11, 26, 50  
 WOMAN'S COLLEGE OF BALTIMORE, 40, 41, 47  
 WOOSTER, UNIVERSITY OF, 39, 42, 43, 46  
 WORCESTER POLYTECHNIC INSTITUTE, 16, 17, 27, 50, 60  
 WÜRZBURG, UNIVERSITY OF, 65, 72, 88, 94  
 WYOMING, UNIVERSITY OF, 31, 40, 41, 46, 47  
  
 YALE UNIVERSITY, 2, 5, 10, 11, 21, 26, 33, 50, 58, 60















**THE CARNEGIE FOUNDATION  
FOR THE ADVANCEMENT OF TEACHING**

**STANDARD FORMS FOR FINANCIAL REPORTS  
OF COLLEGES, UNIVERSITIES, AND  
TECHNICAL SCHOOLS**

**BULLETIN NUMBER THREE**

**576 FIFTH AVENUE  
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THE HISTORY OF THE  
CITY OF BOSTON

BY  
JOSEPH NEASE, Esq.  
OF THE CITY OF BOSTON.



## CONTENTS

	PAGE
<b>INTRODUCTION</b>	<b>1</b>
<b>FORMS</b>	<b>13</b>
SCHEDULE A    Summaries of Income, Expense, Assets, and Liabilities	15
SCHEDULE B-1   Income	16
SCHEDULE B-2   Details of Income from Tuitions	17
SCHEDULE C-1   Expenditures	18
SCHEDULE C-2   Departmental Expenses	19
SCHEDULE D     Balance Sheet	20, 21
SCHEDULE E    { Cash Receipts and Disbursements } { Cash Balance }	22
SCHEDULE F-1   Notes Receivable	23
SCHEDULE F-2   Accounts Receivable	24
SCHEDULE F-3   Rents Receivable	25
SCHEDULE F-4   Net Income from Rents	25
SCHEDULE G-1   Interest and Dividends accrued on Securities. General In- vestments	26
SCHEDULE G-2   Interest and Dividends accrued on Securities. Special In- vestments	26
SCHEDULE H     Securities: Bonds, Stocks and Real Estate Mortgages	27
SCHEDULE I     Investments in Real Estate other than University, or College, Grounds and Buildings	28
SCHEDULE J     Educational Plant: Lands, Buildings, and Equipment	29
SCHEDULE K     Additions to Lands, Buildings, and Equipment	30
SCHEDULE L     Reserve for Depreciation on Lands, Buildings, and Equipment	30
SCHEDULE M     Notes Payable	31
SCHEDULE N     Accounts Payable	32

<b>SCHEDULE O</b>	<b>Bonds and Mortgages</b>	<b>33</b>
<b>SCHEDULE P</b>	<b>Endowment Funds for General Purposes</b>	<b>34</b>
<b>SCHEDULE Q</b>	<b>Endowment Funds for Designated Purposes</b>	<b>35</b>
<b>SCHEDULE R</b>	<b>Gains and Losses on General Investments</b>	<b>36</b>
<b>SCHEDULE S</b>	<b>Surplus Accounts</b>	<b>37</b>

## INTRODUCTION

THE present bulletin is the result of a prolonged inquiry concerning the practice of universities and colleges in the United States in the rendering of public financial statements of their receipts and of their expenditures. It represents also the results of many conferences with the financial officers of colleges and universities, as well as with public accountants and others familiar with the object which such financial statements should serve.

Tax-supported institutions are required by law to print an annual detailed statement of their receipts and expenditures. These reports in some cases simply give the list of separate vouchers. While this may have a value in complying with the state law, such reports serve only a limited purpose in showing the actual operations of the institutions concerned. Nevertheless, it is true that the tax-supported institutions have had a real source of strength by reason of this enforced publicity.

Among endowed institutions only a small minority publish annual financial statements. The great mass of institutions of higher learning in the United States bearing the name college or university make no public accounting of the disposition of the moneys which they receive.

It seems clear that both from the standpoint of its own efficiency no less than from the standpoint of its obligation to the public, every public institution like a college should print annually a report as to the use of the moneys which it has received. It is in the hope of facilitating this public duty, and with the hope further of bringing about some uniformity in these reports, that the present study was undertaken. In its prosecution the effort has continually been made to avoid the complexities of too great detail and to reduce the information which ought to be given to the simplest and most intelligible form.

In order to do this it is necessary to know with some definiteness two things: (1) Who are the persons who make use of financial reports from colleges; and (2) What do those who examine such reports wish to ascertain from them?

From the somewhat extended inquiry which has been made it may be stated with definiteness that the reports of the financial officers of colleges are read by very few people, and these may be classified in the following three groups:

1. Trustees, alumni, and friends of the institution who are directly interested in its welfare;
2. Men of means who contemplate gifts to colleges or who have made such gifts;
3. Individuals and agencies like the United States Bureau of Education engaged in a study of educational methods and cost.

It seems also clear from the inquiries which I have been able to make that these three groups seek to ascertain essentially the same fundamental facts concerning the financial conduct of colleges and universities, with the addition that students of edu-



cation are interested not only in the statistics of a single institution, but in comparative statistics as well.

It may be assumed also that each of these groups of readers of financial reports desires in the first place the presentation of the financial status and conduct of an institution in gross. They all ask three fundamental questions:

1. What is the total income of the institution for the year?
2. What is its annual expenditure?
3. What are the assets at the end of the year?

A considerable number of those who examine reports are satisfied when these leading facts are known, and all subsequent information which can be given consists really of details concerning these three exhibits. The practical questions which have to be met are: What are the significant details to show? and, To what extent must the analysis of assets, liabilities, income, and expenditure be carried in order to show the significant needs or to test the quality of the expenditure?

The answers to these questions depend not so much on expert accounting skill as upon sound business judgment, combined with some educational appreciation of the relation of the cost of education to its efficiency.

In the schedules presented herewith Schedule A shows the gross summaries which indicate the condition of the institution at the end of its fiscal year and its income and expenditures during the year. These give the concise view of the financial status of the institution which the reader first desires to know. The schedules which then follow are intended to offer, in such detail as may be sufficient and not burdensome, the significant items of assets, liabilities, receipts, and expenditures.

While details are included which will be needed only in the case of a large institution with many departments, the report is also arranged for the use of any college, however simple its organization. To provide the material for such an exhibit as is here suggested it is only necessary that the ordinary details of bookkeeping shall be undertaken in some systematic form.

I venture to urge again the duty of every college, whether supported by taxation or by endowment and tuition fees, to make annually a report to the public of its financial operations. The state institutions, as I have stated, are required by law to do this; the absence of such a practice has been a source of much of the looseness which has characterized the financial conduct of many colleges. The college has everything to gain by opening its books to the public, and those who give to colleges will more and more generally insist upon having a definite statement of the use which the college has made of its money. No college which refuses to do this deserves to be entrusted with money. There can be no question, also, but that colleges and universities will be less worldly and less commercial in their standards in proportion as they accept clearly their financial limitations. In the light of complete publicity

sound financial standards as well as sound educational ones will tend to drive out poor standards.

*Second*, I wish to urge that, whether a college follows the exact schedules suggested here or not, those who make its financial reports should seek to segregate those items of income and expense which reveal the significant lines of expenditure, such, for example, as salaries of teachers, the cost of administration, the upkeep of the physical plant, the expenses of different departments, and the like.

Every effort has been made to simplify as far as possible the schedules which follow, and it is necessarily assumed that they will be adjusted by each institution to meet its own needs. As before stated, these schedules are designed primarily as a form for an acceptable annual exhibit of the financial operations of an educational institution. On the other hand, they are suggestive of a method of bookkeeping. But it must be remembered that the actual keeping of the accounts from day to day, especially the designing of a cash-book best suited to the needs of an institution and best adapted to a minimum expenditure of energy, has in recent years become a profession. In whatever method the books are kept the data here called for should be easily obtainable from them.

A word may be said concerning the best date for the beginning of the fiscal year. At present there is no uniformity in practice among institutions of learning in this matter. The majority of institutions which issue financial statements begin the year as of date July 1, and this is apparently the most convenient date. It is, therefore, suggested that colleges and universities adopt July 1 as the beginning of the fiscal year in the interest of uniformity and comparability. It seems to be the only date upon which agreement could be had, and it has the additional advantage of coinciding with the fiscal year of the general government, of many states, and of many business enterprises.

While the schedules which follow are in most cases self-explanatory, the following statements are made in the interest of greater clearness.

#### SCHEDULE A

No comment is necessary regarding this schedule. It gives in most condensed form a view of the income and expenditure and the assets and liabilities of the institution.

#### SCHEDULE B-1

This schedule shows under a group of distinguishing headings the income for the year.

#### SCHEDULE B-2

This schedule shows an analysis of the first item of the preceding schedule. Such an exhibit is of value both from the educational and the financial standpoint. Colleges have been in the habit of receiving many students at reduced tuition, in many cases giving to a considerable group free tuition. The burden which this entails is



## INTRODUCTION

not generally understood. Whether it be a wise practice or not those interested in the college ought to know what this practice actually costs. The acceptance of a scholarship fund generally means an assumption by the college of an additional load. Such a fund is not an endowment of the college, but a subsidy to students dispensed by the college. The fact ought to be made clear in a financial statement both for the benefit of the college and of those who mean to give.

## SCHEDULE C-1

This schedule shows under appropriate heads the large items of expenditure, such as the costs of teachers' salaries, administration, laboratory maintenance, upkeep of the physical plant. The effort has been made to introduce only significant groupings. While the form covers the operations of a large university its applicability to those of a small college is evident.

## SCHEDULE C-2

The preceding table shows the large items of expenditure. The details of these expenditures can be carried out to any length. The object sought is to go only so far as will serve the needs of those who use such reports. Any trustee of a university who is sufficiently interested to study such a report will desire to know not only the distribution of the income as between the college, the law school, and the medical school, for example, but he will also wish to know how much the college spends upon the teaching of history, how much upon mathematics, and upon other departments. When the institution is a college, this information is likewise desired. Schedule C-2 shows the departmental expenditures in such detail as seems desirable.

## SCHEDULE D: BALANCE SHEET

The balance sheet should, of course, contain all of the assets and all of the liabilities of the institution at the close of business on the last day of its financial year, say June 30. Each class of assets and of liabilities should be grouped under distinguishing headings, as shown in the form, without too much detail, so that the balance sheet will show at a glance the financial condition of the institution. Full details making up the totals of the various items shown on the balance sheet should be given on separate schedules, forms for which are presented and explained on the following pages.

The balance sheet is divided into three parts, as follows:

1. Current assets contrasted with current liabilities and balanced by an account which may be either a surplus (of assets) or a deficiency.
2. Investments contrasted with endowments and other permanent funds, exhibiting a surplus (of investments) or a deficiency.
3. Educational plant assets, land, buildings and equipment, contrasted with endowments and other funds, or capital accounts, which have been expended upon the plant.



Every educational institution should exhibit accurately the first part of this balance sheet, i. e., current assets and current liabilities with the resulting surplus or deficit.

Every endowed institution should also exhibit the second part: investments and endowments. The third part, while important, is by no means as important as the other two. It will add much toward a comprehensive view of the institution as a whole whenever part three is exhibited in full, but there are many institutions whose records in respect to costs of plant and equipment are far from complete. It may be that in the majority of the older colleges and schools no reasonably accurate statement of the values of plant and equipment could be given in the balance sheet unless a new and complete appraisal is made of all such property. Such an appraisal is a tedious and costly piece of work, which should not be undertaken unadvisedly. Such appraisals, however, will be found unavoidable, sooner or later, in all university and college accounting, just as such appraisals have been found essential for the public interest for a clear understanding of conditions in railways and other public service corporations throughout the country.

As the schedules which exhibit the funds of the institutions and the related income are referred to in several places on the balance sheet and on the income account, a brief general explanation seems in order at this point. College accounting for endowments and other funds of the institution must consider both principal and income of each fund.

#### *Gain or Loss on Investments*

Against the principal of a particular fund a college may hold specific securities or an undivided portion of its general investments. These investments change from time to time. Securities and real estate may be sold, resulting in either a gain or loss to the institution. Such gains or losses fall naturally into two classes, first, those incurred from the sales of specific investments and, second, those incurred from the sales of general investments. If the security sold belongs to a particular fund the gain or loss from such a sale can readily be credited or charged to the principal of this fund.

If, on the other hand, the security sold is a part of the general investment covering numerous funds, it is obviously difficult to distribute any gains or losses arising from a sale over all the funds. It is a great deal easier and quite as equitable to put all such entries into a general account called Gains and Losses on General Investments. If this account shows a credit balance it indicates a net gain in handling investments, and is an accumulation of capital for the institution to account for. A debit balance, on the other hand, indicates a loss in handling investments which should be made up if possible and, in any event, should not be hidden. This item has therefore been inserted in the balance sheet, but on the credit side only, as it is to be hoped that no institution will have occasion to show an accumulating loss of this character.

*Surplus Income*

The income of a fund is directly related to the investments of its principal. If a fund has its own special investments, its income is solely derived from these investments. If, on the other hand, the fund is invested with others, its income is its *pro rata* share of the income from these general investments.

In either case, if the current income is not entirely expended from year to year the unexpended balance will remain for future use, unless, by some provision of the gift which created the fund, such balances are required to be added to its principal. The income of different funds (and the unexpended balances of this income) may be restricted in use to designated purposes, or may be available for the general purposes of the institution. When there are such balances of unexpended income the accumulation should appear in two items on the balance sheet, and the details should be set up in two classes, as outlined in schedule S.

With this introduction, we may proceed to consider the remaining schedules referred to on the balance sheet.

**SCHEDULE E: CASH RECEIPTS AND DISBURSEMENTS AND CASH BALANCES**

This schedule exhibits the gross cash receipts of the year contrasted with the gross cash disbursements, together with the cash balances at the beginning and at the end of the year. The schedule also calls for details of cash on hand, such as cash held by the treasurer, the librarian, etc., to meet current expenses. Each official and the amount held by him should be shown separately.

Present business custom requires that all moneys received be deposited in the bank and that all payments be made by check. For sundry small expenditures a fund consisting of a round sum—say \$500 or \$1000, according to the size of the business conducted—should be held on hand, out of which payments in cash are made. At the end of each week or month a detailed voucher for these expenditures should be made out and a check drawn for the total thereof to replenish the fund. This method is in use in business so generally that this suggestion may seem unnecessary, although few colleges follow the practice. If pay-roll or salary accounts are paid in currency, one check may be drawn for the exact amount of the pay-roll and charged to a pay-roll account, which should be distributed subsequently by journal entry.

**SCHEDULE F-1: NOTES RECEIVABLE**

This schedule is designed to show all of the notes receivable due to the institution, such as notes received for money loaned on collateral securities, notes received from students, etc. A description of each note—the name of the maker, the date of the note, and the date when the note falls due—should be given, and also, where collateral securities are held therefor, a statement of such securities should be given.



## INTRODUCTION

7

### SCHEDULE F-2: ACCOUNTS RECEIVABLE

This schedule merely calls for a list of all accounts receivable by the institution at the end of the financial year and requires no further comment.

### SCHEDULE F-3: RENTS RECEIVABLE

This schedule is designed to show the income from the rented property during the year, the collections as made, and finally the balance uncollected to correspond with the amount stated among the current assets on the balance sheet.

### SCHEDULE F-4: INCOME FROM RENTS

This schedule is intended to show the profit or loss to the institution from the operation of its rented property during the year. Income from general investments is shown separately from income from special investments.

### SCHEDULE G-1

#### INTEREST AND DIVIDENDS ACCRUED ON SECURITIES, GENERAL INVESTMENTS

### SCHEDULE G-2

#### INTEREST AND DIVIDENDS ACCRUED ON SECURITIES, SPECIAL INVESTMENTS

These schedules exhibit the interest earned in comparison with the interest actually received, and the increase or decrease of interest accrued at the end of the year.

### SCHEDULE H: SECURITIES, BONDS, STOCKS, ETC.

This schedule gives a list of the securities held by the institution and shows the transactions in these securities during the year. Some institutions maintain the practice of furnishing the approximate market value of such securities; others do not.

### SCHEDULE I: INVESTMENTS IN REAL ESTATE

#### OTHER THAN UNIVERSITY OR COLLEGE GROUNDS AND BUILDINGS

Many institutions, in addition to their investments in bonds and stocks, invest to some extent in real estate and manage such property themselves, collecting all rents and paying all taxes and other expenditures in connection with the maintenance of the properties.

Schedule I is designed to show all of such properties owned by the institution at the beginning of each financial year, the properties purchased and the properties sold during the financial year, and the properties owned at the end of the year.

In the first column should be entered the figures from the previous year's accounts. The figures to be inserted in the second column are intended to cover any additions and betterments effected during the year, such as additions to buildings and land, or equipment purchased.



**SCHEDULES J, K, AND L: EDUCATIONAL PLANT, LANDS, BUILDINGS, AND EQUIPMENT**

All of the land, buildings, and equipment necessary for the carrying on of educational work in connection with the institution should be shown in these schedules, which should be considered together.

Schedule J is a summary of the institution's plant, showing the book values at the end of the year. Against these assets, the accounts should provide a reserve for depreciation sufficient to cover the wear and tear not made good by ordinary repairs.

The buildings and equipment deteriorate with age, however, like other structures, and there comes a time when current repairs no longer suffice and when rebuilding becomes necessary. Some of the departmental equipment must be discarded to be replaced by more up-to-date apparatus. Good accounting should distribute these losses over a series of years, by making entries for depreciation and gradually writing down the value of the assets.

This depreciation may be provided, as in the case of the investment real estate, for individual buildings, or departmental equipment (as, for example, the fixtures of a laboratory), or one or more general reserves may be built up by the depreciation charged from year to year.

Real estate used for educational work is not a business asset in the same sense as real estate held as an investment. For this reason the value of the educational plant with the additions and depreciations during the year are made a separable part of the Balance Sheet, Schedule D. It is unquestionably to be desired, however, that an effort be made to place true values on all tangible assets. In this way only can comparisons among similar institutions be made in the matter of costs; and, further, only by this means may a college fairly consider the value of its location with respect to other possible sites. In years past the value of accounting was largely an historical one, and the question as to whether the lands were overvalued or undervalued was not significant. But now that these valuations in accounting are to assist in securing costs and in governing the financial policy, it is quite necessary to fix values for real assets as accurately as possible, and within broad limits to change the valuations as conditions change. To this end the following suggestions are offered:

1. It is not a requisite of good accounting to change the figures of a piece of property every time the market seems to change, but it is important that these changes be made periodically, preferably at stated intervals of from one year to three or five years. Unless an effort is made to do this at given periods, revaluations are apt to occur only when imperative. So important a feature of the accounts should not be left to chance.

2. In the matter of lands, college property seems to be divided into three classes:

- (1) Land, the value of which can be definitely determined from the values of surrounding property, irrespective of the existence of the college. Thus, the value of the site of Columbia University may be estimated by the prevailing

realty values of New York City property in its immediate vicinity. The influence of the college upon the value of the surrounding land is slight.

(2) Land, the value of which is dependent both upon city realty value irrespective of the existence of the college, and upon the influence which the college itself exerts upon the immediate land values. Thus, the land occupied by Harvard University is desirable property as a residential district of easy access to Boston. But the existence of Harvard in Cambridge also undoubtedly holds Cambridge real estate at a higher cost than if Harvard were not there.

(3) Land, the value of which is dependent chiefly upon the existence of the college itself. Princeton University and Hampden-Sidney are types of this class. If either of these institutions were removed their sites would be valuable only as village property or as farm land.

These variables cannot, of course, be sharply differentiated. They may prove helpful in determining a book value which should replace in accounting the original values fixed in some instances many years ago, or the nominal values as given frequently in other instances. It goes without saying that if property is purchased in the open market, the purchase price should be considered the inventory value until changed conditions necessitate a revaluation.

It is generally true that the assessors of a city or county carry in their books the assessed valuation of college real estate even when such property is by law free of taxation. It does not seem to me possible that any failure to furnish a valuation on college real estate used for educational purposes can permanently affect the question of their taxation.

#### SCHEDULE M: NOTES PAYABLE

Similar details should be given of notes payable by the institution as have been called for in regard to notes receivable, *i.e.*, the name of the lender, the date of the note, and the date of maturity, the rate of interest, and a description of the collateral security given, if any. Interest accrued on each note at the end of the institution's fiscal year should be calculated and entered in the outer column, the total of which column is to be added to the total principal and the gross total of notes payable and interest accrued thereon shown on the balance sheet.

#### SCHEDULE N: ACCOUNTS PAYABLE

No further details of the accounts payable are required than a list of the names and amounts. If a large number of the accounts are of small amount, to save space these can be entered in one sum as "miscellaneous accounts."

#### SCHEDULE O: CAPITAL LIABILITIES

This schedule calls for details of the bonds and mortgages on the properties of the institution, such as the dates of issue and the dates when due, the rate of interest and the dates when interest is payable, and a short description of the properties mortgaged.



**SCHEDULE P: ENDOWMENT FUNDS, OR TRUST FUNDS, FOR GENERAL PURPOSES**

Universities and colleges receive endowments with varied instructions as to how the money may be expended. Some endowments are received with no restriction upon the way in which the money may be used, in others the principal is to be kept intact, but with no restriction as to the purpose for which the income may be expended. In some cases the amount given is to be expended for some designated purpose, in others the principal is to be kept intact while the income is to be expended for some designated purpose.

Schedules P and Q have been designed to show particulars of the endowment funds in two classes—general purposes and designated purposes. Schedule P calls for details of endowment funds of the former class—general purposes. A short description of the fund should be made, giving the name of the fund, the date it was received, the name of the donor, and the purpose for which it was given. This recognition of a gift in the annual financial report is more important than it is generally understood to be. The notes made on the schedule under this heading, which were copied from certain college and university reports, will give a clear idea of the information required. The first three columns should contain the amounts of the funds originally received. The amounts of any funds received during the year should be entered in the second of these three columns. Columns are then given to show what portion of the principal of each fund has been expended, and a short description should be given of what purpose it was expended for—such as additions to buildings or equipment, salaries to professors, etc. At the foot of these columns the portion of the fund expended is divided into assets and expenses. The portion expended on additions to buildings, purchases of equipment, or for such purposes as are additions to the assets shown in the balance sheet, should be shown in total separately from the portion expended for the current expenses of the institution, such as teaching, etc. The column “unexpended principal at end of year” should show the amount of the fund still in the hands of the trustees of the institution, which is presumably invested by them. The last columns should show the income received during the year from these investments in which the unexpended portions of the funds are placed.

**SCHEDULE Q: ENDOWMENT FUNDS FOR DESIGNATED PURPOSES**

This schedule calls for the same details as in schedule P.

Regarding the investment of the unexpended principal of funds shown in schedules P and Q, the treasurers' reports of some colleges and universities give exact details of the securities in which each fund is invested, while the treasurers' reports of others give only the details of the securities in which each of a few of the larger funds is invested and consolidate the smaller funds, giving details of the securities in which the total is invested. Others again consolidate all of their funds and show the details of securities in which the total is invested.



On both schedules P and Q the columns showing the present unexpended principal of the fund and the current income are divided, to distinguish whether the fund has specific investments of its own, or is merged in a group of general investments. The principal of a special investment may be entirely different in character from the general investments of the institution, and for this reason the amount and rate of income on funds specifically invested may be entirely different from the income on funds in the general investments.

The accompanying schedules are prepared to secure uniformity of financial reports of institutions of learning with little change in the bookkeeping of such institutions, and in the preparation of the schedules it has been assumed that the unexpended portion of endowment funds is invested in such securities as are called for on schedule H, or in real estate, particulars of which are called for in schedule I and that small balances not invested in securities are on deposit in bank accounts. It is necessary to point out, however, that whenever the unexpended portion of any one fund is invested separately, the total income from such investment during the year is the figure called for to be entered opposite that fund in the column "income of unexpended fund during the year" on schedules P and Q. The general income from investments should be apportioned over the endowment funds relatively to the unexpended amounts of the remaining funds.

#### SCHEDULE R: LOSSES AND GAINS ON GENERAL INVESTMENTS

This schedule exhibits the losses from sales of securities during the year, or gains from the same.

#### SCHEDULE S: SURPLUS ACCOUNTS

This schedule exhibits the three classes of surplus accounts corresponding to the three divisions of the balance sheet, schedule D.

#### BOOKKEEPING

As already mentioned, it is expected that these forms can be filled up by the treasurers of the various universities and colleges from their books, even though the methods of bookkeeping be quite different in the various institutions. It may be anticipated that some of the treasurers will find it necessary to analyze a number of their income and expense accounts to get amounts called for in the forms, but this will not be a serious matter after it has been done once.

It is doubtless impossible to provide an absolutely uniform system of bookkeeping among institutions of learning, but, if the forms here presented are to be generally adopted by the administrators of institutions in the publication of their annual financial reports, it would be exceedingly advantageous for the treasurers of the various institutions to alter the headings of the income and expense accounts in their ledgers so that the latter shall conform with the headings herein in order to facilitate the work of preparing the annual reports. The names of the accounts in the cash-

books and journals from which the entries are posted into the ledgers should also be changed correspondingly. All of these changes are simple ones and should not disturb materially sound accounting methods which may have been used in the past by the various institutions.

#### SUGGESTIONS INVITED

The treasurers or other officers of the various institutions are invited to send to the Carnegie Foundation for the Advancement of Teaching any suggestions which may occur to them relating to the improvement of the attached forms, and they are urged, even at the cost of some labor, to assist, so far as possible, in the effort to secure reports from all colleges which may be not only accurate, but also comparable with similar reports of other institutions.

HENRY S. PRITCHETT.

*June, 1910.*

**STANDARD FORMS FOR FINANCIAL REPORTS  
OF  
COLLEGES, UNIVERSITIES, AND TECHNICAL SCHOOLS**





## SUMMARIES

FOR YEAR.....

## INCOME AND EXPENDITURE

Total income for year, *Schedule B-1* .....Total expenditure for year, *Schedule C-1*.....Net surplus or deficit for year.....  
=====

## ASSETS AND LIABILITIES

Current assets at end of year, *Schedule D* .....Current liabilities at end of year, *Schedule D* .....

Surplus or deficit of current assets .....

Investment assets at end of year, *Schedule D* .....Investment liabilities at end of year, *Schedule D* .....Surplus or deficit of investment assets.....  
=====

## EDUCATIONAL PLANT

Value of lands, buildings, and equipment, *Schedule D*.....Debt: mortgages, notes, etc., against plant, *Schedule D*.....

Net investment in educational plant .....

*Schedule B-1*

INCOME

DESCRIPTION	Items	Totals
<b>INCOME FROM STUDENTS:</b>		
Tuition fees, <i>Schedule B-2</i>		
Incidental fees, matriculation fees		
Special fees for libraries, laboratories, degrees, etc.		
For supplies, chemicals, laboratory materials, etc.		
For dormitories (net), <i>detail sheet</i>		
For dining-halls (net), <i>detail sheet</i>		
<b>INCOME FROM INVESTMENTS OF:</b>		
Endowments for general purposes, <i>Schedule P</i>		
Endowments for designated purposes, <i>Schedule Q</i>		
Other Investments (if any)		
<b>INCOME FROM GRANTS BY NATION, STATE, AND SPECIAL TAXATION</b>		
State aid: Income from endowment granted by state		
Tax levy for current expenses (rate mills)		
Appropriation for current expenses		
Tax levy for buildings or for other special purposes		
Appropriations for buildings or for other special purposes		
Federal aid: Income from land grant, act of July 2, 1862		
Income from other land grants		
Additional endowment acts of August 30, 1890, and March 4, 1907		
<b>GIFTS FOR CURRENT EXPENSES:</b>		
For General Purposes		
<i>(Details)</i>		
For Designated Purposes		
<i>(Details, such as gifts for immediate use on lands, buildings, etc.)</i>		
<b>INCOME FROM OTHER SOURCES:</b>		
<i>(Details)</i>		
<b>TOTAL INCOME</b> .....		



## RECEIPTS FROM TUITIONS

	College of Liberal Arts	Law School	Medical School	Etc.
Number of students registered.....				
Number of students paying full tuition.....				
Receipts from students paying full tuition.....				
Number of students paying part tuition.....				
Receipts from students paying part tuition.....				
Number of students admitted without payment.....				
Total receipts of tuition from all students.....				
Total amount of tuition paid from scholarship or fellowship funds.....				
Total receipts on account of tuition corresponding to first item under income, Schedule B-1.....				
Average tuition paid per student in each school or department.....				

## Schedule C-1

## EXPENSE

DESCRIPTION	Items	Totals
<b>DEPARTMENTAL EXPENSES: Details in Schedule C-2</b>		
College of Liberal Arts		
College of Engineering		
Law School		
Medical School		
Dental School		
Teachers' College		
Agricultural School		
Graduate School		
Other Colleges, or Schools		
(Details)		
<b>ADMINISTRATION AND GENERAL EXPENSES:</b>		
Salaries of officers		
(Details)		
Salaries of assistants, stenographers, etc.		
(Details)		
Expense of administrative officers		
(Details)		
Advertising		
(Details)		
Insurance		
(Details)		
Publication Expenses		
(Details)		
Purchases of Books, Supplies, etc.		
(Details)		
Other General Expenses		
(Details)		
<b>OPERATION AND MAINTENANCE OF PLANT:</b>		
Salaries and wages of janitors, care-takers, etc.		
Mechanicians' wages		
Laborers' wages		
Light, heat and power		
Undergraduate labor		
Repairs		
(Details)		
Depreciation		
(Details)		
<b>EXPENSES OF PRODUCTIVE REAL ESTATE:</b>		
(Details, or Schedule)		
<b>MISCELLANEOUS EXPENSES:</b>		
(Details)		
<b>TOTAL.....</b>		
<b>INTEREST</b>		
(Details)		
<b>TOTAL EXPENSE.....</b>		

## DEPARTMENTAL EXPENSES

19



**BALANCE  
FOR THE END**

**1. CURRENT ASSETS**

Cash in banks and on hand for current expenses, *Schedule E* .....\$  
 Notes receivable and interest accrued thereon, *Schedule F-1*.....  
 Accounts receivable, *Schedule F-2* .....  
 Rents receivable, *Schedule F-3* .....  
 Interest and dividends accrued on bonds, mortgages and stocks, *Schedules G-1 and G-2*.....  
 Other current assets .....  
 Total current assets .....  
 Deficiency of current assets (if any).....\$

**2. INVESTMENT ASSETS AT END OF YEAR**

Securities, *Schedule H* .....\$  
 Real estate, *Schedule I* .....  
 Cash in banks, for investments, *Schedule E*.....  
 Total investment assets .....  
 Deficiency of investment assets (if any).....

Total .....\$

**3. EDUCATIONAL PLANT, LANDS, BUILDINGS, AND EQUIPMENT**

Balance at beginning of year, *Schedule J* .....\$  
 Additions during year, *Schedule K*.....  
 Total.....  
 Less Depreciation, *Schedule L*.....  
 Balance at end of year, *Schedule J* .....\$  
 Total Educational Plant.....\$

## SHEET

OF THE YEAR

## 1. CURRENT LIABILITIES

Notes payable and interest accrued thereon, *Schedule M* .....\$

Accounts payable, *Schedule N* .....

Interest accrued on bonds and mortgages, *Schedule O* .....

Other current liabilities .....

Total current liabilities .....

Surplus of current assets (if any) .....

Total .....\$

## 2. ENDOWMENT FUNDS, ETC., AT END OF YEAR

Bonds or mortgages, against investments, *Schedule O* .....\$

ENDOWMENTS CAPITAL ACCOUNTS:

Funds for general purposes, invested, *Schedule P* .....

Funds for designated purposes, invested, *Schedule Q* .....

Gain or Loss on General Investments, *Schedule R* .....

Total invested funds .....\$

SURPLUS INCOME, INVESTED, *Schedule S*:

From endowments for general purposes, etc. ....

From endowments for designated purposes .....

Total liabilities endowment funds, and surplus against investments .....\$

## 3. EDUCATIONAL PLANT. ENDOWMENTS AND CAPITAL ACCOUNTS

Mortgages on Lands, Buildings, etc., *Schedule O* .....\$

Endowments expended upon Lands, Buildings, etc., *Schedules P and Q* .....

Surplus Income expended upon Lands, Buildings, etc., *Schedule S* .....

Total Educational Plant .....\$

*Schedule E*

CASH RECEIPTS AND DISBURSEMENTS

FOR ALL PURPOSES DURING THE YEAR

TOTAL CASH RECEIPTS.....	\$
TOTAL CASH DISBURSEMENTS.....	\$
Excess of Receipts (or Disbursements).....	\$
CASH BALANCE at beginning of year.....	\$
CASH BALANCE at end of year.....	\$

CASH BALANCE

AT END OF YEAR

CASH ON DEPOSIT at banks:

(Details as to cash for immediate use and for investments)

.....

.....

..... \$

CASH at offices:

(Details as to cash for immediate use and for investments)

.....

.....

..... \$

CASH BALANCE, as above..... \$



### Schedule F-1

93

### Schedule F-2

## ACCOUNTS RECEIVABLE

FOR TUITION :

(Details arranged alphabetically)

[illegible]

*Schedule F-3*

**RENTS RECEIVABLE**

**ARREARS OF RENTS at beginning of year**.....\$  
**RENTS due during year**.....\$  
**Total**.....\$  
**COLLECTIONS OF RENTS during year**.....\$  
**ARREARS OF RENTS at end of year**.....\$

---

*Schedule F-4*

**NET INCOME FROM RENTS**

	<i>Real Estate belonging to the General Investments</i>	<i>Real Estate belonging to the Special Investments</i>
<b>RENTS due during year</b> .....	\$	\$
<b>EXPENSES: Taxes</b> .....	\$	\$
<b>Insurance</b> .....	\$	\$
<b>Repairs</b> .....	\$	\$
<b>Commissions</b> .....	\$	\$
<b>Miscellaneous</b> .....	\$	\$
<b>Total Operating Expenses</b> .....	\$	\$
<b>Depreciation Charged</b> .....	\$	\$
<b>Total</b> .....	\$	\$
<b>NET INCOME (or NET DEFICIT) for year</b> .....	\$	\$

---



*Schedule G-1*

INTEREST AND DIVIDENDS ACCRUED ON SECURITIES

GENERAL INVESTMENTS

INTEREST AND DIVIDENDS accrued at beginning of year.....\$  
INTEREST AND DIVIDENDS earned during year.....\$  
Total.....\$  
INTEREST AND DIVIDENDS received during year.....\$  
INTEREST AND DIVIDENDS accrued at end of year.....\$

*Schedule G-2*

INTEREST AND DIVIDENDS ACCRUED ON SECURITIES

SPECIAL INVESTMENTS

INTEREST AND DIVIDENDS accrued at beginning of year.....\$  
INTEREST AND DIVIDENDS earned during year.....\$  
Total.....\$  
INTEREST AND DIVIDENDS received during year.....\$  
INTEREST AND DIVIDENDS accrued at end of year.....\$

## Schedule H

## SECURITIES: BONDS, STOCKS, AND REAL ESTATE MORTGAGES

DESCRIPTION OF SECURITIES	Balance at beginning of year. Cost	Purchases during year. Cost	Sales during year. Cost	Balance at end of year. Cost	Interest Received	Interest Accrued
<b>BONDS:</b>						
20,000 Illinois Central R.R. Co.'s 4's, due 1922						
etc.						
etc.						
<b>STOCKS:</b>						
400 shares American Smelting & Refining Co. Preferred						
etc.						
etc.						
<b>REAL ESTATE MORTGAGES:</b>						
Cornelia Page, on 41 W. 47th St., New York, at 4½ %, due 1910						
etc.						
etc.						
<b>Total</b>						

*Schedule I*

INVESTMENTS IN REAL ESTATE OTHER THAN  
UNIVERSITY, OR COLLEGE, GROUNDS AND BUILDINGS

DESCRIPTION OF PROPERTIES	Balance at begin- ning of year. Cost	Pur- chases during year. Cost	Sales during year. Cost	Balance at end of year. Cost



## EDUCATIONAL PLANT: LANDS, BUILDINGS, AND EQUIPMENT

ACCOUNT	Balance at beginning of year. Cost	Purchases during year. Cost	Sales during year. Cost	Balance at end of year. Cost
UNIVERSITY SITE, CAMPUS, GROUNDS, ETC. <sup>1</sup>				
GRADING, PLANTING, ROADS, WALKS, ETC. <sup>1</sup>				
BUILDINGS: <sup>1</sup>				
(Details)				
DEPARTMENTS' EQUIPMENT :				
.....Department				
Furniture and fixtures				
Library				
Collections				
etc.				
.....Department				
Furniture and fixtures				
Library				
Collections				
etc.				
DORMITORIES :				
Furniture and fixtures				
etc.				
DINING HALL				
Furniture and fixtures				
etc.				

<sup>1</sup>If for any reason these items are omitted, a full statement of the cost, dimensions, and other details should be prepared. There should be a full and historically correct statement of the cost of the grounds and buildings, somewhat as follows:

The college grounds were acquired in ..... in the following manner and at the following cost (*here give full particulars*).

The main building (used for recitation rooms and for the executive offices) is about ..... by ..... built of granite and brick, and was erected in ..... at a cost of \$ ..... the funds being provided as follows (*here give full particulars*).

..... Hall is about ..... by ..... of brick with stone trimming and is used for ..... purposes. It was built in ..... and cost about \$ ..... the funds being provided as follows (*here give full particulars*).

## Schedule K

### ADDITIONS TO LANDS, BUILDINGS, AND EQUIPMENT

ADDITIONS TO LANDS .....\$

(Details)

ADDITIONS TO BUILDINGS .....\$

(Details)

ADDITIONS TO EQUIPMENT .....\$

(Details)

Total during year .....\$

## Schedule L

### RESERVE FOR DEPRECIATION ON LANDS, BUILDINGS, AND EQUIPMENT

	Balance of account at beginning of Year	Credits during the year	Extraor- dinary Re- pairs charged to Reserve during Year	Balance of account at End of Year
For Depreciation on Buildings.....	\$	\$	\$	\$
For Depreciation on Equipment.....				
Less Appreciation on Land (if any).....				
Total .....				
Balance of Reserve Account at End of Year.....				\$

### Schedule M

31



### Schedule N

## ACCOUNTS PAYABLE

ACCOUNTS PAYABLE:

### Details

This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf of a book. The paper has a slightly textured appearance with some faint smudges and discoloration, characteristic of old paper. Along the right edge, there is a series of small, dark, rectangular binding elements or staples. The overall tone is warm and slightly yellowed, suggesting the age of the document.

## BONDS AND MORTGAGES

33

# Schedule P

## ENDOWMENT FUNDS FOR GENERAL PURPOSES

NAME AND DESCRIPTION OF FUNDS <sup>1</sup>	Total principal received to beginning of year	Additions to principal received during year	Total principal received to end of year	Expenditures from Principal of Funds				Unexpended Principal at End of Year		Income of Unexpended Fund during the Year	
				Description of how expended	Total amt. of principal expended to beginning of year	Amount of principal expended during year	Total amount of principal expended to end of year	In general Investments	In special Investments	From general Investments	From special Investments
<b>THE ORIGINAL ENDOWMENT FUND</b> This fund was left by John Smith, who bequeathed most of his large estate for the establishment of a university and hospital. The gift is free from ecclesiastical or political control. The university foundation is without conditions except that the capital cannot be used for buildings.											
<b>ENDOWMENT FUND OF 1903</b> A fund given by the citizens of ..... and other friends of the university headed by ..... and ..... at the time of the celebration of the 25th anniversary of the opening of the university. The principal is to be held as a permanent fund; the income may be used at the discretion of the trustees.											
<b>HENRY S. ALLING</b> A bequest left by him October, 1901, the income to be used for the advancement of history and political science and education, to the promotion of which he had devoted his life (originally \$42,059.48, now \$50,000).											
<b>SCHOLARSHIP FUND</b> Established in 1894 by Mrs. .... as a memorial to her husband. Five Scholarships of \$100 each.											
				Funds expended on Buildings, etc., such as are carried in the Balance Sheet as Assets.							
				Funds expended on Teaching, etc., such as are charged in the Income and Expense Account.							
				Total expended as above							
				<b>SUMMARY</b>							
				Unexpended principal at end of year, in investments (Schedule D).							
				Unexpended principal at end of year, in educational plant (Schedule D).							
				Total unexpended principal, as above							

<sup>1</sup> The various funds and their sources and objects should be described somewhat as shown in the column. In institutions where a large number of such funds are held these details may be more conveniently published in a separate hand-book once for all or in a special number of the treasurer's report. In general, too little attention is given to acknowledging in a regular formal manner the donors of college gifts.



**NOTE.** The various funds and their sources and purposes should be here described somewhat as shown on schedule P.

*Schedule R*

**GAINS AND LOSSES ON GENERAL INVESTMENTS**

**BALANCE OF ACCOUNT** at beginning of year .....\$.....

**GAINS ON SALES** of Securities during year .....\$.....

**Less Loss** on Sales of Securities during year .....

**Net Gain (or Loss)** during year.....\$.....

**Balance of account** at end of year .....\$.....

## SURPLUS ACCOUNTS

## 1. SURPLUS OF INCOME AVAILABLE FOR CURRENT EXPENSES

BALANCE at beginning of year.....	\$
NET INCOME (or DEFICIT) for year, <i>Schedule A</i> .....	\$
BALANCE at end of year, <i>Schedule D</i> .....	\$

---

## 2. SURPLUS OF INCOME INVESTED IN SECURITIES OR PRODUCTIVE REAL ESTATE

	<i>General Investments</i>	<i>Special Investments</i>
BALANCE at beginning of year.....	\$	\$
SURPLUS OF INCOME INVESTED during year.....		
Total.....	\$	\$
LOSSES IN INVESTMENTS during the year.....		
BALANCE at end of the year, <i>Schedule D</i> .....	\$	\$

---

## 3. INCOME EXPENDED FOR LANDS, BUILDINGS, AND EQUIPMENT. EDUCATIONAL PLANT

EXPENDED FROM INCOME to beginning of year.....	\$
ADDITIONS FROM INCOME during year.....	\$
EXPENDED to end of year, <i>Schedule D</i> .....	\$



Page 1

The first part of the paper discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

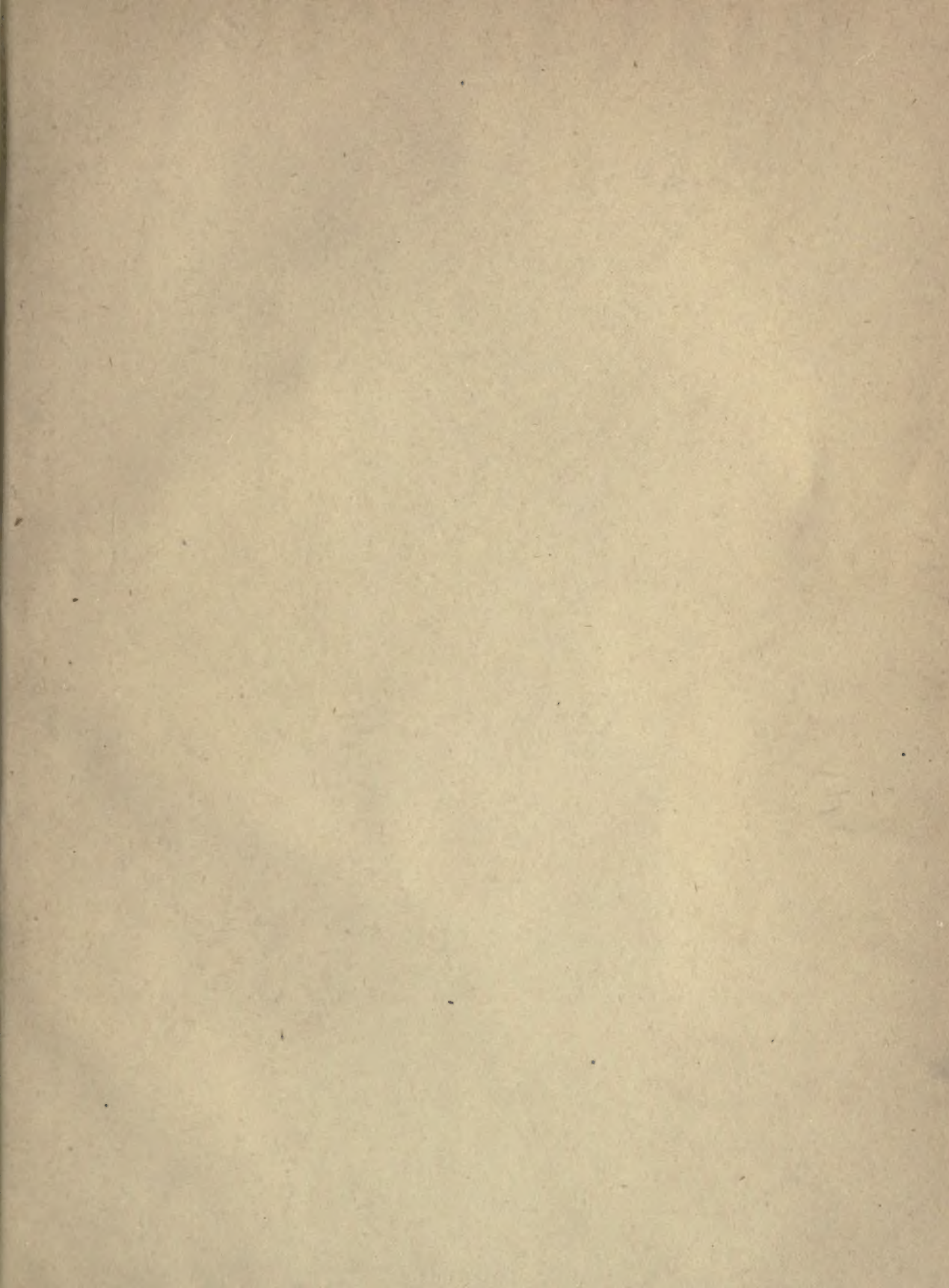
The second part of the paper presents the results of the study. It includes a detailed description of the data collected and the analysis performed. The results are presented in a clear and concise manner, with appropriate use of tables and figures.

The third part of the paper discusses the implications of the study and the conclusions drawn from the results. It also provides a brief summary of the findings and the recommendations for future research.













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